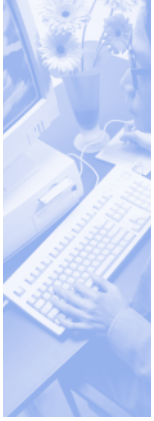

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Contents

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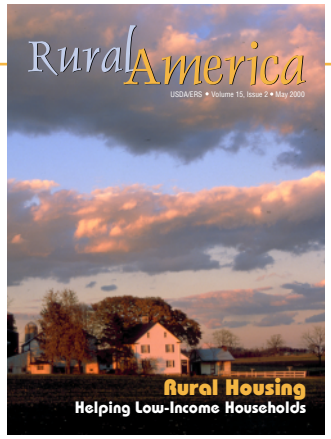
On the cover: *Dairy farm at dusk (Photo by Larry Lefever)*



Rural America
USDA/ERS • Volume 15, Issue 2 • May 2000

In this issue, we feature a special section on rural housing. Although rural homeownership is even higher than the national average (two out of three households), the quality of rural housing is often below that in urban areas. Rural homes tend to be smaller, less expensive, and more likely to have physical defects. Three articles in this issue explore rural housing problems and the efforts of government agencies to combat them.

Leslie A. Whitener's article introduces a new indicator of housing poverty based on a combination of several measures—economic need, adequacy of housing, crowding, and neighborhood quality. Using this multidimensional measure, she finds that 17 percent of nonmetro households—4.3 million—were housing poor in 1995, versus 30 percent of central city households. Minority households were more likely to be housing poor. The most important factors in housing poverty varied by group—housing quality for minority families, economic need for White families. Overcrowding was especially significant for Hispanics.

Government policies at all levels have an impact on rural housing. Most direct Federal mortgage lending for rural housing goes through USDA's Section 502 Single Family Direct Loan Program, administered by the Rural Housing Service. These loans are targeted to low- and moderate-income rural residents who cannot obtain other credit for adequate housing. George Wallace, Linda Ghelfi, James Mikesell, and Leslie Whitener report on a recent ERS survey of Section 502 borrowers. Borrowers are generally first-time home buyers, under 40, and in families with children. Respondents credited the program with helping them find better housing and better neighborhoods.

Local government policies can also affect the type and availability of rural housing. Ann Ziebarth provides a case study of one Minnesota community and its use of zoning and other local regulations to guide housing development. Community leaders have tried to foster economic development through agricultural processing employment while preserving traditional rural ideals by encouraging single-family housing. These industries, however, have brought in seasonal and immigrant workers, who have had trouble finding affordable housing of that type. Efforts to expand low-income housing through townhouses and multifamily rental units have led to conflicts in the community.

Our two remaining articles relate to the rural workforce. Lorin D. Kusmin examines the payoff for using a computer at work, and finds a 10-percent premium overall for using computers on the job. However, although computers are more widely used in metro jobs, computer use explains only a small portion of the wage gap between metro and nonmetro areas. Moreover, better educated and more skilled workers benefit the most from computers. Computer training for low-skilled workers may not be enough to prepare them for better jobs.

Lorin D. Kusmin and Robert M. Gibbs explore the career paths of workers without college educations. Dividing occupations into "starter," "goal," and "dead-end" jobs, they find that metro and nonmetro areas have similar shares of these jobs. About half the less-educated workers whose entry-level jobs could be classified are able to begin with starter or goal jobs that have good prospects for advancement. Unfortunately, these are often in fields that may be on the wane. The other half—women and minorities especially—begin with dead-end jobs with little promise of promotions.

Douglas E. Bowers

Housing Poverty in Rural Areas Greater for Racial and Ethnic Minorities

Leslie A. **Whitener**

Despite the higher prevalence of housing poverty in central cities, 4 million households in nonmetro areas were classified as housing poor based on a new multidimensional measure of housing disadvantage. Nonmetro Hispanic, Black, and other minority households were more likely than their White counterparts to be in housing poverty. But the dimensions of poverty operate differently for these groups. Housing quality was a more important factor in determining housing poverty for minority households, while economic need was the most important indicator for White households. Crowding was a particularly salient issue for nonmetro Hispanics.

Many rural areas have grown both economically and in population during the 1990's. Increased metro-to-nonmetro migration has raised questions about the adequacy of existing housing and amenities. The housing cost burden (housing costs as a proportion of income) continues to be a major problem across the United States. While the extent of housing disadvantage varies across rural population groups, it is greater for racial and ethnic minorities than for Whites (Mikesell).

Minorities are an increasing proportion of the rural population, particularly among children and younger adults (Cook). The growth rate from immigration continues to be fairly constant. The low birth rate among non-Hispanic Whites is offset by higher birth rates for minority groups, particularly among relatively recent immigrants. If current trends continue, minorities will approach 50 percent of the U.S. population by the year 2050 (Bureau of the Census). Although the proportion of minorities is lower in the rural than in the urban population, specific minority groups are highly concentrated in some rural regions.

Leslie Whitener is Chief of the Food Assistance and Rural Economy Branch, Food and Rural Economics Division, ERS, USDA.

A Multidimensional Indicator of Housing Poverty

Traditional measures of housing poverty or housing disadvantage have focused on single indicators, such as the lack of complete plumbing, housing cost burden, or structural adequacy of the home (Cook and Krofta; Dolbeare; Whitener). This article introduces a multidimensional measure of housing poverty as a more appropriate tool for understanding differences in housing conditions and socioeconomic well-being. Using data from the 1995 American Housing Survey (see "Data and Definitions" for more detail), this article demonstrates the strengths of this new measure, assesses its utility for understanding rural-urban differences in housing disadvantage, and identifies factors affecting housing poverty among different racial and ethnic minority populations in rural areas.

Poverty measures based solely on economic need have been criticized for their inability to accurately portray well-being. As a result, measures that incorporate a broader range of indicators, including noneconomic dimensions, have been advanced as more conceptually useful. This argument applies to housing poverty as well. Building on work by Gundersen and others, this article develops a multidimensional indicator that combines measures of economic need, housing quality, and perception of neighborhood.

Housing-poor households are those meeting one or more of the following criteria (see "The Measure of Housing Poverty" for more detailed definitions):

- **Economic Need:** Housing costs (including mortgage, taxes, insurance, repairs, rent, etc.) exceed 50 percent of household income from all sources;
- **Housing Quality (Adequacy):** The physical housing structure is defined as moderately or

severely inadequate based on a standard HUD measure of physical problems using 26 variables covering plumbing, heating, upkeep, hallways, electricity, and kitchen;

- **Housing Quality (Crowding):** The number of household members exceeds the number of rooms in the unit, as defined by HUD;
- **Neighborhood Quality:** Households were bothered by at least two of four perceived "poor" neighborhood conditions, including crime, noise, litter or deteriorating housing, or inadequate public services.

Photo courtesy USDA/OC Photography Division.

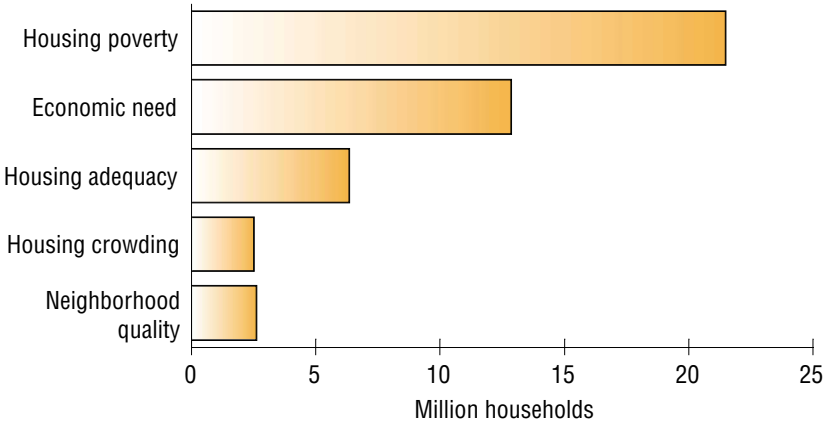
Using this multidimensional measure, about 21 million occupied U.S. housing units (22 percent of the total) in 1995 were classified as housing poor (fig. 1). Most (89 percent) qualified as housing poor based on only one component; 11 percent met two or more criteria. Economic need (measured by housing cost burden) identified the largest number of households as housing poor. However, use of this component alone to define housing poverty would have excluded over 30 percent of households as housing disadvantaged. The other components identified smaller populations of need.

Is this measure of housing disadvantage simply measuring economic poverty? About 46 percent of the housing poor had incomes below the official poverty level, and another 15 percent were classified as near poor (100-149 percent of poverty). Still, almost 4 in 10 experienced housing disadvantage but were not in economic poverty. At the same time, while most of those not classified as housing poor had incomes well above the poverty level, about 15 percent were poor or near poor but experienced no housing disadvantages. A measure based on poverty level alone would have excluded over half of the housing-poor households identified by the multidimensional measure.

Figure 1

Dimensions of housing poverty, 1995

Over 21 million U.S. households were housing poor



Source: Calculated by ERS from 1995 American Housing Survey.

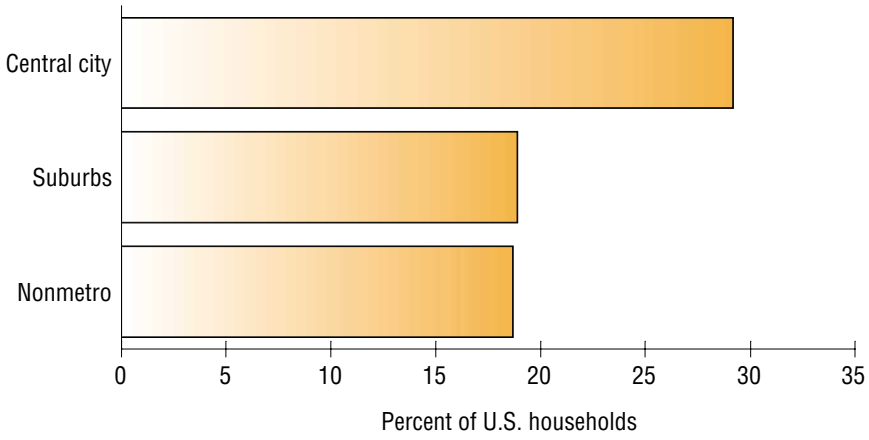
Housing Poverty Varies by Metro-Nonmetro Residence

Is this measure useful for understanding housing differences in metro and nonmetro areas? The prevalence of housing poverty in metropolitan central cities was considerably higher than for suburbs or nonmetro areas. Almost 30 percent of households in the central cities were classified as housing

Figure 2

Housing poverty by metro-nonmetro residence, 1995

Housing poverty is more prevalent in central cities

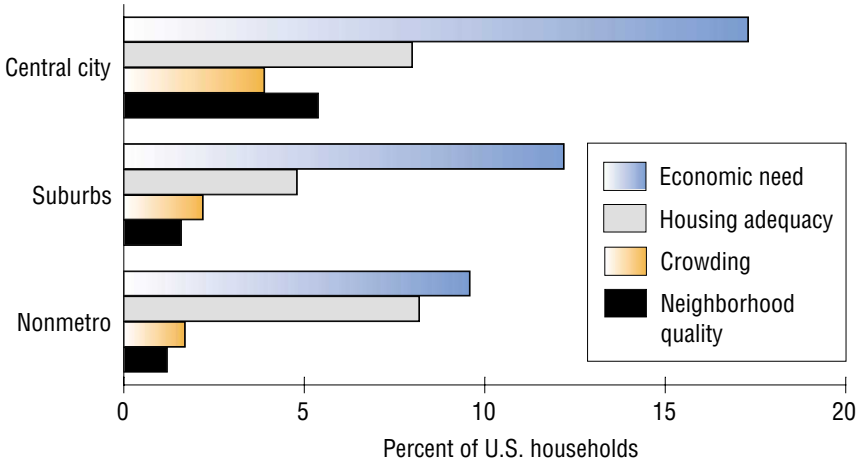


Source: Calculated by ERS from 1995 American Housing Survey.

Figure 3

Dimensions of housing poverty by residence, 1995

Housing adequacy and economic need most characterized nonmetro areas



Source: Calculated by ERS from 1995 American Housing Survey.

poor compared with about 19 percent for both metro suburbs and nonmetro areas (fig. 2). Still, over 4 million households in nonmetro areas were housing disadvantaged.

Also, the dimensions of housing poverty work differently in metro and nonmetro areas. Central city households were more likely to be classed as "disadvantaged" on every individual component of the housing measure (except for adequacy in nonmetro areas) than households in either the suburbs or nonmetro areas (fig. 3). Economic need defined the largest proportion of housing poor in each residential area, but was a more prevalent indicator in central cities. In contrast to the other areas, structural housing adequacy was almost as important an indicator in nonmetro areas as was economic need.

Housing Poverty Is More Prevalent Among Rural Minorities

Higher proportions of rural minority households were housing poor compared with White households. About 35 percent of nonmetro Hispanic and 37 percent of Black and other households were classed as housing poor, compared with 17 percent of White households (fig. 4). Central cities had higher proportions of Hispanics in housing poverty (46 percent) than either suburbs or nonmetro areas, but housing poverty for Blacks and others was not appreciably higher in central cities.

Also, the dimensions of housing poverty operate differently for nonmetro minority households. Both Hispanic and Black and other households were more likely than Whites to be classed as "poor" on each dimension of the housing poverty measure (fig. 5). Housing quality (defined by structural adequacy) identified the largest proportion of minority households in nonmetro households. In contrast, economic need was the most important indicator for White households. Housing adequacy and crowding were the most important indicators for Hispanic households, while economic need and housing adequacy were the most critical for Blacks and others.

Household Characteristics Affect Housing Poverty of Rural Minorities

Minority status affects the characteristics of households in housing poverty. Most Hispanic householders (heads of households) were married (59 percent), male (63 per-

cent), and under 45 years of age (60 percent) (table 1). Over two-thirds of households had more than two members, and most of these had children present. Hispanic households were as likely to own their own home as to rent. Almost half were below the poverty level, with another 22 percent near poverty (100-149 percent of poverty level). About 6 out of 10 lived in the South.

In direct contrast to Hispanics, the majority of Blacks and others were widowed, divorced, separated, or never married (73 percent); were more likely to be female (60 percent); tended to be older (53 percent 45 and over), and were even more likely to live in the South (82 percent). Black and other households were smaller (52 percent with two members or less), and a third had only one person. Blacks and others were slightly more likely than Hispanics to own their home. A considerably larger share (63 percent) of Blacks and others were below poverty, and another 13 percent were near poverty.

White households resembled Hispanic households in terms of householders' marital status and gender, and household poverty status, and were similar to Black and other households in terms of householders' age, household size, and family composition. Whites were most likely to own their home (63 percent). They were also less concentrated in the South and were more evenly distributed in other regions.

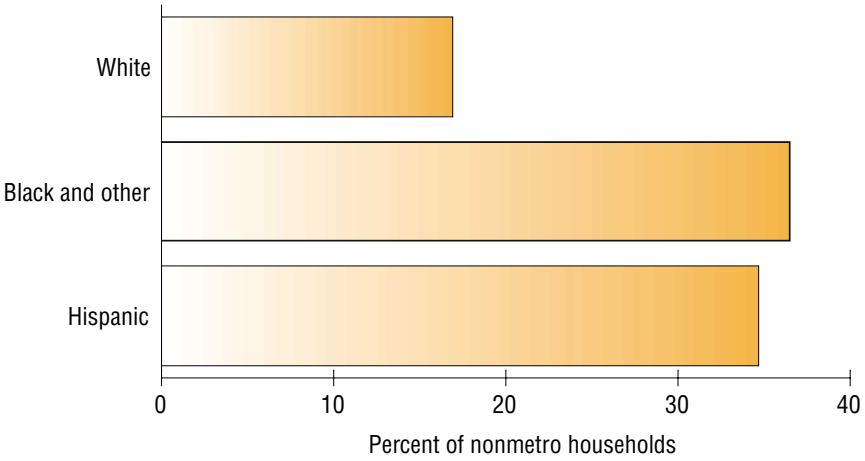
A Multidimensional Measure of Housing Poverty Captures Important Residential Differences

The multidimensional measure of housing poverty, by incorporating four indicators (economic need, housing adequacy, crowding, and

Figure 4

Housing poverty of nonmetro households by minority status, 1995

Over a third of minorities were classified as housing poor

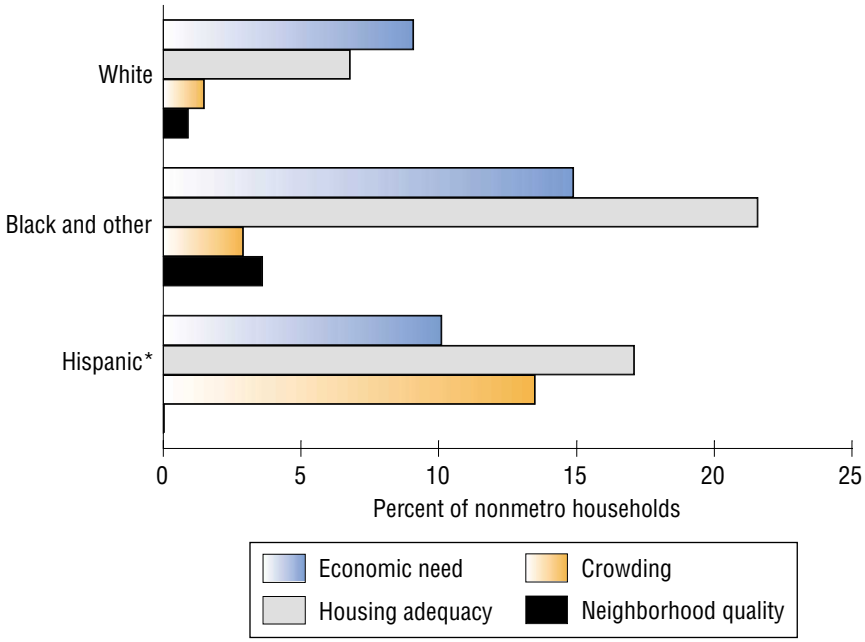


Source: Calculated by ERS from 1995 American Housing Survey.

Figure 5

Dimensions of nonmetro housing poverty by minority status, 1995

Minorities were more likely to be classified as "poor" on each dimension



*Less than 1 percent of Hispanics classified as housing poor in neighborhood quality.
Source: Calculated by ERS from 1995 American Housing Survey.

Table 1

Characteristics of nonmetro households in housing poverty by minority status, 1995

Whites are more likely to own their homes and are more evenly distributed among regions

Characteristic	White	Black and other	Hispanic
		Thousands	
Housing-poor households	3,308	734	250
		Percent	
Married	47.2	27.4	58.8
Divorced, separated, or widowed	39.9	44.1	30.8
Never married	12.9	28.5	10.4
Male	57.1	40.1	63.2
Female	42.9	59.9	36.4
Younger than 25	8.2	12.1	10.0
25-44	36.0	35.0	49.6
45-64	29.0	31.6	26.8
65 and older	26.8	21.3	13.6
Northeast	10.9	1.4	2.8
North Central	29.3	8.4	6.0
South	42.4	82.2	57.0
West	17.4	8.0	34.2
Household size:			
1-2	60.5	51.6	33.3
3-4	25.8	30.5	24.9
5 and over	13.7	17.9	41.8
Family composition:			
1 person	33.9	30.0	17.7
2 or more, no children	27.2	22.3	14.8
2 or more, with children	38.9	47.7	67.5
Own home	62.8	51.1	46.8
Rent	34.5	42.9	47.2
Other	2.7	6.0	6.0
Below poverty	51.6	63.0	49.3
101-149% of poverty level	15.1	13.4	21.8
150%-199% of poverty level	8.9	7.9	17.7
200% and over	24.4	15.7	11.2

Source: Calculated by ERS from the 1995 American Housing Survey.

neighborhood quality) into one measure, identifies a broader population of need or disadvantage than does any one indicator. Also, it measures more than economic poverty, and captures a substantial proportion of housing poor who are not economically poor.

This multidimensional measure of housing poverty is useful for understanding housing differences by location. Clearly, it differentiates housing experiences among central city, suburbs, and nonmetro areas, with central city residents having the highest level of housing poverty and nonmetro and suburban residents having the lowest level.

In addition, the dimensions of housing poverty operate differently in metro and nonmetro areas. For example, economic need was a more important indicator in central cities, while both economic need and structural housing adequacy were important in nonmetro places. This variation argues for the use of a multidimensional indicator to capture and address these distinctions.

This measure of housing poverty also highlights differences among rural minorities. Nonmetro Hispanic and Black and other households are more likely than White households to be in housing poverty. But the dimensions operate differently for these groups. For example, housing quality was a more important indicator for minority households, while economic need characterized White households. Crowding was a particularly salient issue for nonmetro Hispanics.

The Measure of Housing Poverty

Households are defined as housing poor if they meet one or more of the following criteria:

Economic Need.
Housing costs exceeded 50 percent of household income. Housing costs include monthly mortgage, taxes, insurance, repairs, rent, homeowners' association fees, etc., multiplied by 12 (months). Household income is reported for the 12 months prior to the interview and is the sum of wage and salary income, self-employment income, interest or dividends, stock dividends, Social Security or railroad retirement income, public assistance or welfare payments, alimony or child support, and all other money income for all household members 14 and older, before deductions.

Housing Quality (Adequacy).
A housing unit has severe physical problems **(severely inadequate housing)** if it has any of the following five problems:
Plumbing. Lacking hot or cold piped water or a flush toilet, or lacking both bathtub and shower, all inside the structure for the exclusive use of the unit.
Heating. Having been uncomfortably cold last winter for 24 hours or more because the heating equipment broke down, breaking down at least three times last winter for at least 6 hours each time.
Electric. Having no electricity, or all of the following three electric problems: exposed wiring, a room with no working wall outlet, and three blown fuses or tripped circuit breakers in the last 90 days.
Upkeep. Having any five of the following six maintenance problems: water leaks from the outside, leaks from the inside structure, holes in the floor, holes in the walls or ceilings, more than a square foot of peeling paint or broken plaster, or signs of rats or mice in the last 90 days.
Hallways. Having all of the following four problems in public areas: no working light fixtures, loose or missing steps, loose or missing railings, and no elevator.

A unit has moderate physical problems **(moderately inadequate housing)** if it has any of the following five problems, but none of the severe problems.
Plumbing. Having the toilets all break down at once, at least three times in the last 3 months, for at least 6 hours each time.
Heating. Having unvented gas, oil, or kerosene heaters that give off unsafe fumes as the main source of heat.
Upkeep. Having any three of the six upkeep problems mentioned under severe.
Hallways. Having any three of the four hallway problems mentioned under severe.
Kitchen. Lacking a sink, range, or refrigerator, all for the exclusive use of the unit.

Housing Quality (Crowding).
A housing unit is considered crowded if the person-per-room ratio is greater than 1:1.

Neighborhood Quality.
This measure is based on the respondent's opinion and attitude toward the neighborhood, as defined by the respondent. The respondent was asked a two-part question: (1) "Is there anything about the neighborhood that bothers you?" and (2) if yes, "What?" The interviewer coded the responses into categories of crime; noise; litter or housing deterioration; poor city/county services; traffic; undesirable commercial, institutional, or industrial property; people; other. Multiple responses were allowed. Households were defined as "poor" on neighborhood quality if they experienced at least two of four "poor" neighborhood conditions—crime, noise, litter or housing deterioration, and poor city/county services.

The term "housing poverty" is used here because the measure is based in part on economic need (although not the official OMB poverty measure) and to maintain consistency with the housing literature. "Housing disadvantage" is used synonymously with "housing poverty" in this article.

Data and Definitions

The American Housing Survey (AHS) is conducted biennially by the Bureau of the Census for the U.S. Department of Housing and Urban Development. The AHS is a longitudinal survey designed to provide detailed information on housing structure, use, and plumbing characteristics; equipment and fuel use; housing and neighborhood quality; financial characteristics; and household attributes of current occupants. The national sample is based on about 55,000 units selected for interview in 1995. Data are weighted to reflect the U.S. population. The analysis is based on all occupied housing units, both owned and rented. Residence definitions used in the 1995 AHS are based on 1983 Office of Management and Budget designation for metro and nonmetro areas. Racial and ethnic minorities are classed into categories of White, Hispanic, and Black and other. The three groups are not mutually exclusive, since Hispanics may be of either race.

Successful policy efforts to improve the adequacy and affordability of the Nation's housing and neighborhoods will recognize the considerable diversity of housing conditions among nonmetro population groups. At the same time, the extent of housing poverty in central cities remains a greater challenge to policymakers in terms of numbers and the share that requires assistance.

For Further Reading . . .

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to home-delivered meals

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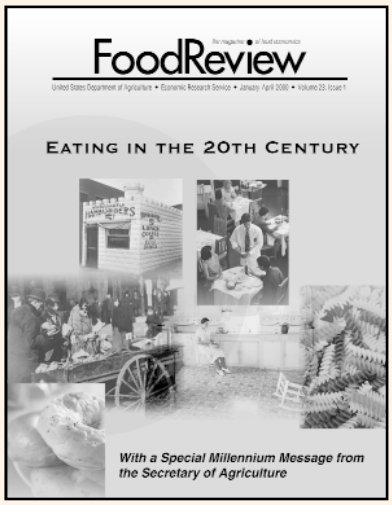

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ERS also celebrated the Millennium with a research conference, **"The American Consumer and the Changing Structure of the Food System,"** which was held on May 3-5.

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Direct Loans Open Doors to Rural Homeownership

George **Wallace**
Linda **Ghelfi**
James **Mikesell**
Leslie **Whitener**

USDA's Section 502 Single Family Direct Loan Program provides subsidized housing loans to very low- and low-income rural residents who are without adequate housing and cannot obtain credit from other sources. An ERS survey of recent Section 502 borrowers finds that they are typically under 40, in families with children, and first-time homebuyers. Most of them believed that their current home and neighborhood are better than their previous ones and that, without assistance from the program, they would not have been able to afford a comparable home for at least 2 years, if ever.

Despite improvements in housing quality and a narrowing of the rural-urban gap in housing conditions over time, many rural households still face inadequate housing or high costs (Mikesell; Housing Assistance Council; Whitener, 1998). For example, in 1995, 1.6 million nonmetro households lived in housing classified as substandard, and substantial proportions of both nonmetro and metro households were burdened by high housing costs of more than 30 percent of their income (Whitener, 1999). Problems related to adequacy and affordability can occur in both growing and declining areas. In declining areas, demand for new housing may never arise and much of the existing housing stock may depreciate and become inadequate. In growing areas, demand may exceed supply, driving up housing prices and putting adequate housing outside the reach of low-income households.

George Wallace, Linda Ghelfi, and James Mikesell are economists and Leslie Whitener is a sociologist with the Food and Rural Economics Division, ERS, USDA.

For over 50 years, USDA programs have provided home mortgages to low-income rural families, undoubtedly contributing to higher levels of homeownership in rural communities. The Rural Housing Service (RHS), formerly the Farmers Home Administration and now part of USDA's Rural Development mission area, operates a broad range of programs to promote and support affordable housing development in rural areas. Through the Section 502 Single Family Direct Loan Housing Program, RHS offers subsidized mortgage loans to low-income rural families who are without adequate housing and cannot obtain credit from other sources (see "Section 502 Single Family Direct Loan Housing Program").

At the request of the USDA's Rural Development mission area, the Economic Research Service (ERS), in cooperation with the Social and Economic Sciences Research Center at Washington State University, conducted the 1998 Survey of USDA's Single Family Direct Loan Housing Program. The survey was designed to provide detailed information on the characteristics of recent participants in the Section 502 program.

To help determine whether the program is helping specific types of rural residents and helping to improve rural housing, we defined comparison groups of rural homeowners and rural tenants from the 1995 American Housing Survey (see "Data Sources" for a definition of how "rural" is used in this article). These comparison groups allow us to assess whether recent Section 502 borrowers are similar to or better off than other rural low- to moderate-income homeowners. The renter comparison group provides insights into the characteristics and housing needs of rural low- to moderate-income renters, who are most likely to be eligible to participate in the Section 502 program. (See "Data Sources" for more information on the ERS survey, the American Housing Survey, and our comparison group selection process.)

Who Are Section 502 Borrowers?

What characterizes Section 502 program participants, and how do they benefit from participating? To address these questions, we examined the demographic characteristics and economic well-being of recent Section 502 borrowers.

Household Type. Section 502 households are predominantly (71 percent) married couples and female single parents, both with children under 18 (fig. 1). Single parents, especially those who rely on alimony for a large share of their income, may have difficulty obtaining commercial mortgages. The program appears to be helping out, with single parents comprising a third of households surveyed. Some of the single parents undoubtedly obtained their loans while married and have since been divorced, separated, or widowed.

The 502 program allows mortgage payments to be adjusted as income changes.

Section 502 borrowers are twice as likely as the low- to moderate-income homeowner comparison group to be female single-parent households, while the nonprogram homeowners are much more likely to be married couples with no children (table 1). However, the largest proportion (almost 40 percent) of both homeowner groups are married couples with children.

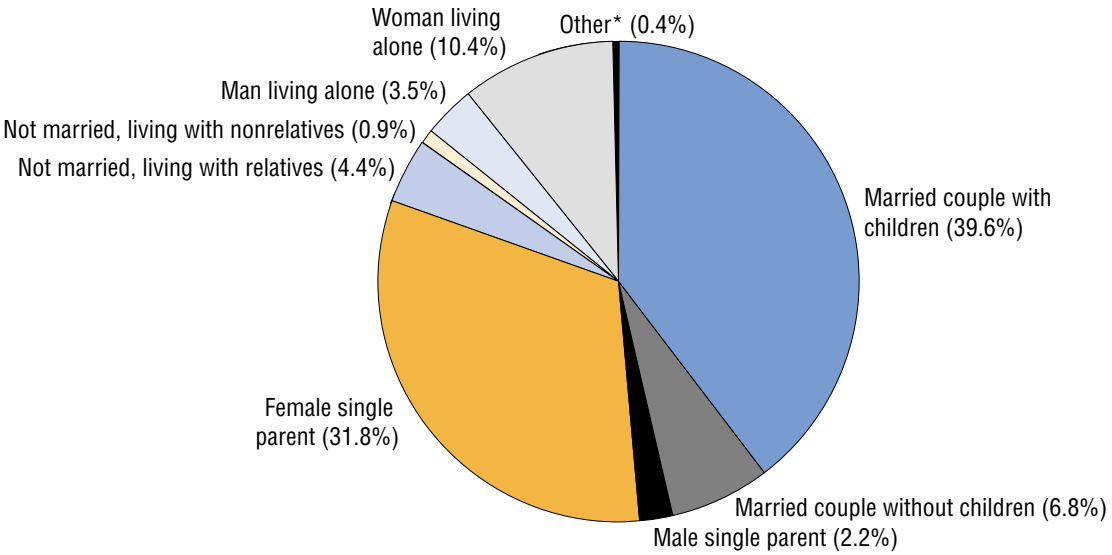
The largest proportion of low- to moderate-income renters is individuals living alone (table 1). Single parents are a slightly larger share of the renter comparison group than of the homeowner comparison group, leaving Section 502 borrowers much more likely than either comparison group to be single parents. Like the homeowner comparison group, the low- to moderate-income renters are more likely than 502 borrowers to be married couples with no children.

Respondent Age. Section 502 borrowers are predominantly under 40 years old (fig. 2). The largest share (37 percent) are 30 to 39. The share of respondents drops off at age 50, with less than 8 percent 50 to 61 and 6 percent 62 and older. A younger age distribution should be expected among recent participants in a home mortgage program of last resort. Household income tends to increase with age and work experience. Younger householders are more likely than older householders to need the 502 program in order to obtain their first house. The modest participation of elderly households in the program may be of particular concern, however, because Section 502 may offer them an affordable way out of substandard homes.

Figure 1

Section 502 borrower households by composition

Female single parents and married couples with children are the largest groups of program participants

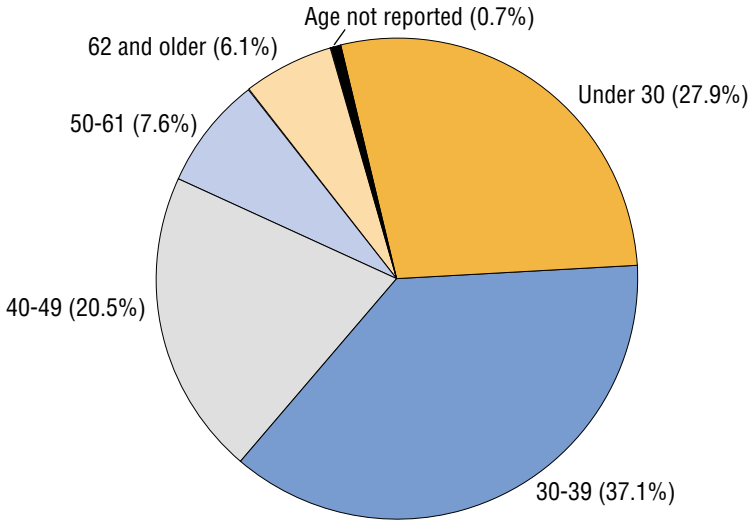


*Other includes households that did not report number of members and/or their relationships to the respondent.
Source: 1998 Survey of USDA's Single Family Direct Loan Housing Program, ERS.

Figure 2

Age of Section 502 borrowers

Young people under the age of 40 are about two-thirds of recent program participants

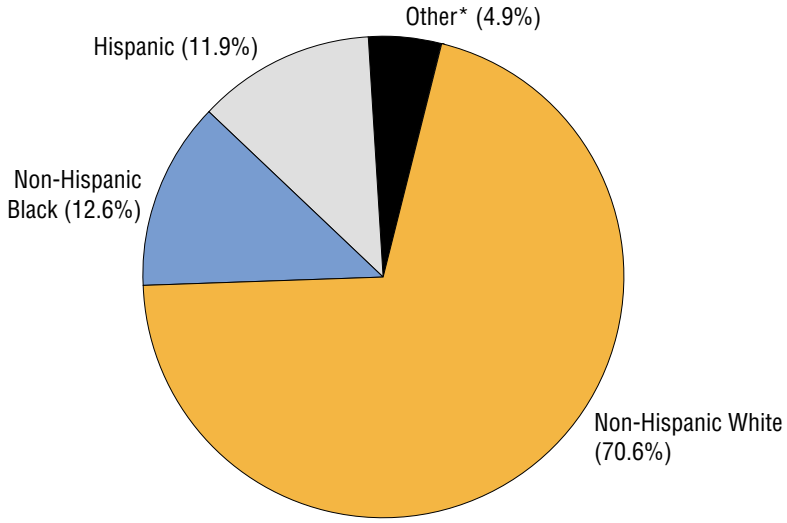


Note: Age is of the borrower who answered the survey.
Source: 1998 Survey of USDA's Single Family Direct Loan Housing Program, ERS.

Figure 3

Race and ethnicity of Section 502 borrowers

Non-Hispanic Blacks and Hispanics comprise a quarter of program participants



*Other includes Asians, Native Americans, and survey respondents who did not identify themselves by race or ethnicity.
Source: 1998 Survey of USDA's Single Family Direct Loan Housing Program, ERS.

Section 502 borrowers are more likely to be under 40 than other low- to moderate-income recent homeowners (table 1). Both Section 502 borrowers and the AHS renter group tend to be younger, with more than half of each group under 40 years of age. However, 22

Section 502 Single Family Direct Loan Housing Program

Today, most direct Federal mortgage lending to rural areas is done through USDA's Section 502 Single Family Direct Loan Program, currently run by the Rural Housing Service (RHS). Although the U.S. Department of Housing and Urban Development (HUD) provides home mortgage assistance to both urban and rural areas through its Federal Housing Administration's (FHA) single-family home mortgage insurance program, only 6 percent of the mortgages it insured in fiscal year 1997 were in nonmetro areas (Mikesell).

Section 502 direct subsidized homeownership loans are made to very low-income and low-income rural families who are without adequate housing and cannot obtain mortgage financing from other sources. Low-income families are those with adjusted incomes under HUD's applicable low-income limit, usually 80 percent of the median income of the local area; very low-income families have adjusted incomes under 50 percent. Loans can be used to build, repair, renovate, or relocate a home, or to purchase and prepare sites, including providing water and sewer facilities. Section 502 loans may also be used to refinance debts to avoid losing a home or to make necessary rehabilitation of a house affordable.

percent of the AHS tenants are 62 or older, compared with 6 percent of the Section 502 borrowers. Again, the 502 program is most likely serving young, first-time homebuyers with difficulty qualifying for conventional loans.

Race/Ethnicity. While 70 percent of Section 502 borrowers are non-Hispanic Whites, 13 percent are non-Hispanic Blacks and 12 percent are Hispanics (fig. 3). The low incomes of many minority households may restrict their access to credit, and lack of sufficient funds for a downpayment is frequently the biggest hurdle in obtaining a home mortgage. Poor credit history may also be a problem, and some may face racial discrimination or unfair practices. Some lenders may avoid the very neighborhoods in which minority households could afford to buy a home. There are too few Native Americans in the survey to report on them separately, but they face similar hurdles to homeownership.

Racial/ethnic minority households comprised a much larger share of Section 502 borrowers than of either AHS comparison group (table 1). About 30 percent of the 502 program participants are minorities, compared with 15 percent of the homeowner comparison group and 22 percent of the renter comparison group. The Section 502 direct loan program seems to be reaching minorities who would otherwise be unable to buy a home.

Household Income and Its Sources. The vast majority of recent borrowers' household incomes are low or moderate, with median household income of recent borrowers about $20,000 in 1997. Seventy-one percent had incomes below $25,000 in 1997 (table 1), compared with 68 percent of the homeowner comparison group and 85 percent of the renter comparison group.

Over 87 percent received some wage and salary income during 1997 (table 2). With so many single parents participating, 23 percent of Section 502 borrower households reported alimony or child support. Social security, retirement, and interest and dividend income were each reported by 13 percent of borrower households. Few borrowers rely on income support from public assistance programs. When received, public assistance was most often in the form of food stamps: 18 percent of households reported someone in their household had received food stamps for at least a month during the year. Food stamps are restricted to households with income (adjusted for several factors) that is below 130 percent of the poverty threshold, indicating that nearly one-fifth of the respondent households had very low incomes for at least a month out of the previous year.

Table 1

Selected characteristics of Section 502 households and comparison groups

Section 502 households are more likely than other recent low- to moderate-income rural homeowners to be single parents, young, and minorities

Characteristic	Section 502 households	1995 AHS rural comparison groups: Low- to moderate-income recent owners	1995 AHS rural comparison groups: Low- to moderate-income renters
		Percent	
Household composition:			
Married, children under 18	39.6	37.9	24.2
Married, no children	6.8	21.7	11.7
Single parent	34.0	16.0	19.6
Living alone	13.9	17.0	32.8
Other[1]	5.7	7.4	11.7
Age of respondent:			
Under 40	65.0	49.3	53.8
Over 40	35.0	50.7	46.2
Race/ethnicity of respondent:			
White non-Hispanic	70.6	84.5	78.4
Black non-Hispanic	12.6	7.1	10.1
Hispanic	11.9	6.6	8.8
Other[2]	4.9	1.8	2.7
Household income:			
Under $25,000	70.6	68.0	85.3
$25,000 or more	29.4	32.0	14.7

[1]Other includes unmarried householders living with relatives or nonrelatives and, for Section 502 households, those who did not report household composition.

[2]Other includes Asians, Native Americans, and those who reported "other" race. For Section 502 households, other also includes those who did not report race or ethnicity.

Source: 1998 Survey of USDA's Single Family Direct Loan Housing Program, ERS.

Table 2

Types of income received by Section 502 households

While wage and salary income was most common, alimony or child support was received by many households

Type of income	Households reporting income	Share of households reporting income[1]
	Number	*Percent*
Wages or salaries	2,645	87.7
Net income from a farm or other self-employed business	139	4.6
Social security and/or other retirement income	392	13.0
Interest and dividends	398	13.2
Aid to Families with Dependent Children	118	3.9
Supplemental Security Income	272	9.0
Food stamps[2]	544	18.2
Other public assistance	61	2.0
Alimony or child support	687	22.7
Workers' compensation	48	1.6
Veterans' benefits	49	1.6
Unemployment benefits	260	8.6
Disability income	121	4.0
Survivors' benefits	42	1.4
Other income	44	1.5

[1]Households could report more than one source of income, so percentages do not add to 100 percent.

[2]Food stamps are not considered cash income, but are included to show all the sources of public assistance that the respondents were asked about.

Source: 1998 Survey of USDA's Single Family Direct Loan Housing Program, ERS.

Place of Residence. Recent 502 borrowers are concentrated in the South (43 percent), compared with 25 percent in the Midwest, 21 percent in the West, and 11 percent in the Northeast. By 1990 metro-nonmetro designations, 43 percent of borrower households are within the boundaries of metro counties and 57 percent are in nonmetro counties. And, by the difficult-development status HUD has published for 1999, 47 percent of borrower households are in counties that contain difficult-development census block groups. A difficult-development area is one designated by the Secretary of HUD as an area that has high construction, land, and utility costs relative to the area's gross income. Whether the households are inside the block groups cannot be determined, but location within such counties suggests that the households may have restricted access to commercial credit.

Section 502 households are much more likely to be in the South than the AHS groups of low- to moderate-income homeowners and renters. The AHS does not provide county-level locational indicators, so we could not determine how many of the comparison group households are in counties containing difficult development areas.

In short, female single parents, young homebuyers, racial/ethnic minorities, and southern residents may be more likely to look to and qualify for the Section 502 direct loan program than rural low- to moderate-income homebuyers in general. The program is more likely to attract low- to moderate-income renters who are married couples with children and female single parents than tenants who are married couples with no children, elderly, or individuals living alone.

Section 502 Loans Have Improved Housing Conditions

When asked how their current home compared with their prior housing, most Section 502 borrowers reported improvements in housing conditions. For example:

- Over 70 percent were first-time home buyers, and homeownership is highly valued by most Americans.
- Nine of 10 borrowers indicated that the quality of their current home was better than their previous home, and 6 of 10 reported their current neighborhood was better than their previous neighborhood.
- Over half reported that their current housing costs were lower or about the same as in their last residence. The 48 percent who indicated their costs were higher mostly reported higher incomes as well.

The Single Family Direct Loan Program also appears to elevate some households from Federal rental assistance programs to homeownership. About 25 percent of program participants had received Federal rental assistance at some time prior to purchasing their home and about a fourth of those had received that assistance from Rural Development's rural rental assistance program. This suggests the rural rental assistance program is effectively steering its partici-

pants toward eventual homeownership.

Many of the comparison group homeowners and renters had serious housing disadvantages in terms of housing cost burden, structural inadequacies, and crowding (table 3). Over a quarter of these had housing costs (mortgage, taxes, insurance, repairs, and utilities for homeowners; rent, insurance, and utilities for renters) that exceeded 30 percent of household income, with 6 to 8 percent facing a severe housing cost burden—over 50 percent of income. About 10 percent of low- to moderate-income homeowners and 14 percent of renters experienced crowding (the number of household members exceeded the number of rooms). Seven percent of these recent rural homeowners (12 percent of renters) had housing classified as moderately or severely inadequate based on a HUD measure of the adequacy of plumbing, heating, and electrical facilities, maintenance items like leaking roofs and holes in walls, kitchen facilities, and condition of public hallways and common areas (see Whitener, 1999, for a more detailed definition). Overall, almost a quarter of the low- to moderate-income homeowners and a third of the renters experienced one or more of these housing disadvantages.

Table 3
Housing characteristics of Section 502 and comparison group households
Section 502 households are much less likely to be crowded than the low- to moderate-income comparison group households

Characteristic	Section 502 households	1995 AHS rural comparison groups: Low- to moderate-income recent owners	1995 AHS rural comparison groups: Low- to moderate-income renters
		Percent	
Housing cost burden:[1]			
Exceeds 30% of income	NA	25.1	28.6
Exceeds 50% of income	NA	7.5	5.9
Housing quality:			
Crowding[2]	3.0	10.3	13.9
Structurally inadequate[3]	NA	7.1	11.8
Housing disadvantage[4]	NA	23.9	30.3
Highly satisfied with housing[5]	80.0	77.7	59.0
Highly satisfied with neighborhood[6]	77.0	77.5	69.0

NA = Not available from the 1998 Survey of USDA's Single Family Direct Loan Housing Program.
[1]Housing costs as a percentage of household income.
[2]Number of persons in household exceeds number of rooms in housing unit, as defined by HUD.
[3]Moderate or severely inadequate based on a standard HUD measure of physical problems using 26 variables covering plumbing, heating, electricity, upkeep, hallways, and kitchens.
[4]Households meeting one of the following criteria: housing cost burden exceeds 50 percent; crowded; and moderately or severely inadequate.
[5]Scores of 8, 9, and 10 on a scale of 1-10 with 1 the worst and 10 the best based on the question, "How would you rate this home as a place to live?"
[6]Scores of 8, 9, and 10 on a scale of 1-10 with 1 the worst and 10 the best based on the question, "How would you rate this neighborhood or community as a place to live?"
Sources: 1998 Survey of USDA's Single Family Direct Loan Housing Program, ERS, and the 1995 American Housing Survey, Bureau of the Census.

Although we did not collect comparable data on cost burden or most housing inadequacies from our sample of Section 502 borrowers, the Section 502 program operates to help ensure that program participants do not experience such housing disadvantages. The houses purchased under the program must meet soundness standards, and repayment schedules are adjusted annually to keep payments at or below 30 percent of household income. Although not as inclusive a measure of costs, just over 19 percent of 502 borrowers reported that their principal, interest, taxes, and home insurance costs exceeded 30 percent of their reported incomes, and might be due for a downward adjustment of payments. The one comparison we can make is on crowded housing. Only 3 percent of Section 502 borrowers—versus 10 and 14 percent of comparison group homeowners and renters—live in homes with more household members than rooms.

Section 502 program participants indicated high levels of satisfaction with their housing and neighborhood. Somewhat surprisingly, given the quarter of comparison group homeowners who had at least one housing disadvantage, about 80 percent of both Section 502 borrowers and comparison group homeowners reported high levels of satisfaction with their housing and neighborhood (table 3). The greater incidence of hous-

Photo courtesy USDA/ERS.

ing disadvantage among the renter group may be reflected in the lower share of renters who are highly satisfied with their housing and neighborhood.

Last, 90 percent of borrowers said that, without the Section 502 program, it would have taken longer than 2 years–if ever–for them to be able to buy a comparable home.

Conclusion

The ERS survey was the first nationally representative survey of the Section 502 Direct Rural Housing Loan Program. Recent changes in Section 502 program requirements, operations, costs, and funding levels renewed interest in the characteristics of the low-income recipients and the effectiveness of the program at improving the housing and economic status of rural residents.

The survey showed that the program is reaching low- to moderate-income borrowers whose household characteristics indicate that qualifying for conventional loans may be difficult, if not impossible, for them. Compared with low-income rural residents, Section 502 borrowers are disproportionately single parents, minorities, under the age of 40, and living in the South. The Section 502 program allowed many first-time homebuyers to purchase a home they might not otherwise have been able to afford. Ninety percent of borrowers said that, without the Section 502 program, it would have taken longer than 2 years for them to be able to buy a comparable home.

More extensive findings from the 1998 Survey of USDA's Single Family Direct Loan Housing Program can be found in *Meeting the Housing Needs of Rural Residents* (Mikesell et al.). In addition to reporting on the overall characteristics of program participants, that report provides extensive information on target groups (elderly, single parent, disabled, Black, and Hispanic subsets of participant households).

For Further Reading . . .

Housing Assistance Council, *Rural Housing and Welfare Reform: HAC's 1997 Report on the State of the Nation's Rural Housing*, Washington, DC, Dec. 1997.

James J. Mikesell, "Housing Problems Differ Across Types of Rural Households," *Rural Conditions and Trends*, Vol. 9, No. 2, Feb. 1999, pp. 97-101.

James J. Mikesell, Linda M. Ghelfi, Priscilla Salant, George Wallace, and Leslie A. Whitener, *Meeting the Housing Needs of Rural Residents: Results of the 1998 Survey of USDA's Single Family Direct Loan Housing Program*, RDRR-91, USDA, ERS, Dec. 1999, <http://www.ers.usda.gov/epubs/pdf/rdrr91/rdrr91.pdf>

Leslie A. Whitener, "Rural Housing Conditions Improve but Affordability Continues To Be a Problem," *Rural Conditions and Trends*, Vol. 8, No. 2, Sept. 1998, pp. 70-87.

Leslie A. Whitener, "Measurement of Housing Poverty: An Application to Nonmetro Racial/Ethnic Minorities," Paper presented at the Rural Sociological Society annual meetings, Chicago, IL, Aug. 1999.

Data Sources

The 1998 Survey of USDA's Single Family Direct Loan Housing Program. The data are from a nationwide survey of participants in USDA's Section 502 Single Family Direct Loan Housing Program, designed to provide information on the characteristics of the low-income rural residents who benefit from this program. ERS developed the survey instrument with input from RHS, representatives of housing interest groups, and the academic research community. In 1998, ERS and the Social and Economic Sciences Research Center of Washington State University conducted a national telephone survey of 3,027 recent program participants whose loans closed between 1994 and 1998. These individuals were chosen to represent the almost 60,000 recent borrowers who participated in the program nationwide, excluding those in Guam, Puerto Rico, and the Virgin Islands. All respondents who answered the survey questions were borrowers on a current Section 502 single-family direct loan taken from Rural Development administrative records. Data reported here are based on the responses of the borrower participating in the telephone interview. No distinctions are made between a primary or secondary borrower.

The survey collected information on the demographic, educational, and employment characteristics of recent program participants and their household members; current and past housing conditions and costs; satisfaction with current residence, neighborhood, and the Rural Development financing experience; extent of participation in public assistance programs; and sources and amounts of household income. The survey response rate was 70.3 percent. Estimates have a margin of error of $\pm$ 1.7 percent at the 95-percent confidence level.

The American Housing Survey. This report also uses data from the 1995 American Housing Survey (AHS) to compare demographic, housing, and economic characteristics of Section 502 participants with other low-income rural residents. The AHS is conducted biennially by the Bureau of the Census for the U.S. Department of Housing and Urban Development. The AHS is designed to provide detailed information on housing structure, use, and plumbing characteristics; equipment and fuel use; housing and neighborhood quality; financial characteristics; and household attributes of current occupants. The national sample is based on about 55,000 units selected for interview in 1995. Data are weighted to reflect the U.S. population.

The AHS identifies seven geographic categories based on metro-nonmetro and rural-urban designations. Under the Section 502 program, eligible rural areas are defined as open country and rural places under 20,000 population or under 10,000 population in a Metropolitan Statistical Area (MSA). Thus, RHS provides housing loan assistance in rural portions of both nonmetro and metro areas. When examining AHS data, we adopt a definition of rural that comes closest to matching the definition used in the Section 502 program. This definition defines rural areas to include not only open country and towns under 2,500 people, but also larger towns, as long as they are outside densely populated areas of 50,000 population. Our definition includes households in urban and rural suburbs in both metro and nonmetro areas and households in rural nonmetro areas. Use of this definition most likely overstates the number of rural households eligible for USDA assistance since some are located in areas with populations over 20,000 but less than 50,000, which are not eligible areas. However, use of only rural or nonmetro categories would have omitted a large number of eligible households in the more rural parts of metro areas. This definition is consistent with that used by the Housing Assistance Council in their annual Reports on the State of the Nation's Rural Housing (1997).

Selection of Comparison Groups. To identify comparison groups from the 1995 American Housing Survey (AHS), we used a definition of rural that most closely matches the definition of eligibility for USDA's rural housing programs. Thus, we defined rural areas to include households outside metro central cities and urbanized areas, and outside nonmetro urbanized areas. The number of rural households according to that definition was 37.2 million in 1995. From that population, we selected those who had purchased or built a home within the last 5 years to compare with our recent program participants. From that subsample, we selected recent homeowner households with incomes between 80 and 220 percent of the poverty threshold, a range based on the distribution of our survey households' incomes relative to the poverty threshold. Household income for our survey respondents averaged 150 percent of the poverty threshold. One standard deviation above and below that 150 percent constructs the 80- to 220-percent range.

The AHS does not include data to identify rural residents who would be eligible for participation in the Section 502 Single Family Direct Loan Program. Determination of eligibility requires detailed information on amounts and sources of income, expenses, family size, and other factors and is determined by individual case. However, the AHS data can identify a target population of tenants in rural areas who have incomes similar to those of Section 502 borrowers, and who may have a strong incentive to participate in USDA's single family housing loan program to improve their housing conditions. We defined a group of renter households with low- to moderate-incomes based on the income range of 80 to 220 percent of the poverty thresholds. Most of these households had incomes high enough to make payments on a modest house, but their low incomes and inability to make substantial downpayments might render them less attractive to many commercial lenders.

Local Housing Policy
The Small-Town Myth and Economic Development

Ann **Ziebarth**

Changes in the rural economy are challenging small-town identity. Local communities are encouraging economic development and population growth while struggling to maintain "rural character." These efforts frequently foster policies—such as the banning of mobile homes, zoning requirements for large lots, enforcement of building codes, and barriers to the provision of multifamily rental housing—that result in higher consumer housing costs. Such policies reduce housing options for community newcomers and those with lower incomes, often with the unintended consequence of restricting economic development. This article examines ways in which economic restructuring has affected local housing conditions and policies in one Minnesota community.

The popular perception of the rural Midwest as a pastoral countryside dotted with idyllic small towns is a powerful force in shaping rural policy. For many small communities, the desire to maintain their "rural character" while promoting growth and economic development is the basic premise guiding local policy decisions. Maintaining "rural character" is an attempt to hold on to a mythical rural ideal based on assumptions both about the way the community should look and how it is supposed to function.

The ideal image of a thriving small town is one of well-kept single-family homes, a community school, two or three churches, and a bustling main street. Housing is a key element. The visual predominance of single-family, detached, owner-occupied houses set on individual lots embodies the national values of private property rights and the American dream of homeownership.

Such common perceptions idealize small towns in terms of their social relations as well as visual images. Small towns are thought to be friendly, caring communities, an ideal setting to raise a family or to grow old gracefully. Unlike cities, small towns are seen as safe, convenient, and serene, without traffic congestion or fear of crime (Roper Organization, Inc.). Furthermore, compared with urban places, small towns are said to be more democratic, with local political processes that are "more honest, more personalized, and less conflict oriented" (Mattson, p. 127).

These perceptions are based on the assumption that social harmony results from homogeneity and a community consensus based on shared interests, similar backgrounds, and common experiences. Today, however, the largely mythical ideal of small towns' rural character is being challenged by economic restructuring and demographic changes. Furthermore, successful economic development efforts and subsequent population growth often bring racial and ethnic diversity into smaller communities, increase pressure on local real estate markets, and create conflicts over local housing policies.

Low-Wage Factories and Immigrants Challenge Rural Ideals

During the past decade, the economic base of the Midwest's rural communities has shifted from agricultural production to processing and manufacturing. Increasing globalization within these industries has heightened competition and narrowed profit margins. To remain competitive, many agricultural processing firms recruit new immigrants and minority workers at lower wages to contain their production costs (Stull, Broadway, and Griffith). Large-scale livestock operations, meatpacking plants, and firms involved in the seasonal production and processing of vegetables, fruits, and horticultural crops have all followed suit.

The lower wages paid by such "lean and mean" firms cause greater income stratification in small communities. This, in turn, increases concerns about the work-

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ing poor and housing affordability for both current and new residents. However, pressure to develop and sustain affordable housing often conflicts with local policies designed to maintain the community's rural character. Such policies include banning mobile homes, zoning for large lot sizes, and limiting multifamily rental housing. Yet, these policies result in higher consumer housing costs that can make it difficult for local firms to attract lower wage workers, and ultimately restrict economic development.

In many places, the demographic changes resulting from inmigration have had an even more substantial impact than the economic effects of lower wages. In many communities, population growth has resulted in a rapid and dramatic racial and ethnic change. In these communities, the status quo of social interactions based on shared interests and common problems may be disrupted (Krannic and Greider). Long-time residents who have experienced their community as a network of people with common backgrounds and interests sometimes perceive newcomers as disrupting a sense of local identity rather than revitalizing the community (Mattson; Salamon and Tornatore).

Community conflicts over the provision of affordable housing often disprove the idealized notion of a democratic community. Political decisions in small communities are frequently made by a few influential leaders (Mattson), who are inclined to maintain a status quo that promotes their own ends (Johnston). Among these recognized preferences is maintaining neighborhood integrity through geographically defined housing stratification. Therefore, community policies frequently enforce stratification by separating class groups through local land use and building regulations.

Housing is a place-bound commodity. The housing market is directly tied to the social structure and economic situation of a particular location, and this is determined both by household members' choices and economic and community policies. Thus, while economic changes have increased the need for more basic and affordable housing, community preferences remain firmly fixed on idealized housing solutions based on cultural norms. Using one community as a case study provides an opportunity to examine how the local economic base has impacted the housing situation as well as the community's response to these circumstances.

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Alternative housing for seasonal workers. Photo courtesy Ann Ziebarth.

Olivia, Minnesota: A Case Study

Located 90 miles west of the Minneapolis-Saint Paul metropolitan area, Olivia, Minnesota, population 2,623, is a thriving, self-contained small town. The ideal community personified, it bills itself as "a friendly city with small-town charm, surrounded by some of the area's richest farmland." A 35-foot-high ear of corn at Memorial Park is the community's totem.

Survey Data and Methods

The data for this study were obtained as part of a larger project compiling information on rural communities' economic development strategies, labor force characteristics, and housing needs. Study communities were selected to represent various economic development strategies, such as agricultural processing plants, tourism, and new prisons. Key participants in each community are interviewed to enhance the community profiles compiled from secondary data, public documents, maps, and observation. Secondary data include information from the U.S. Census C90STF3A files, the Minnesota Department of Trade and Economic Development Community Profiles, and documents from county economic development commissions and city governments. For Olivia, an indepth personal interview with the Economic Development Authority director was conducted. Followup telephone interviews and observations within the community were used to verify and update the information.

Firms that support nearby agricultural production dominate the economy of the "Corn Capital." In addition to the cooperative grain elevator and agriculture-related government agencies, private industry includes agricultural service companies and a sweet corn processing plant. Three major seed companies operate research and distribution facilities in Olivia. These firms are subsidiaries of multinational companies, with most of the management decisions made outside the community. Together, they employ about 120 local workers, with most of them in technical, well-paid jobs.

Another firm that distributes certified seed opened within the last year. The new firm is a multistate company, again with headquarters outside the local community. The city annexed the site for the facility in less than 6 weeks and provided $400,000 in infrastructure development to attract the company. The facility employs 12 people with starting wages of $9.50/hour.

The local canning company is a long-time locally owned firm that processes sweet corn. The company relies on seasonal workers—about 120 at peak production—mostly long-term employees from the Texas migrant stream. The company has provided housing in a few company-owned and managed units. Recently, efforts were made to improve and expand the housing available for seasonal workers. However, these discussions were interrupted when the company merged with a larger regional company that was subsequently purchased by an international corporation.

In addition, large-scale swine confinement operations, meatpacking plants, large poultry and egg production and processing facilities, and a massive beet sugar processing cooperative outside Olivia require increasing numbers of unskilled workers, further straining Olivia's housing market.

Small-Town Ideal Is at Odds With Current Housing Needs

"We're a progressive area with great agriculture. Anytime you have a strong basic resource such as agriculture, you need a variety of supporting businesses and services." At the same time Olivia's mayor and the community promote economic growth and increased employment, there remains a strong desire to maintain the small-town ideal. Population growth is seen as both a measure of economic success and a threat to the status quo of the community where social interactions are readily understood. To accommodate new employees, the community needs to develop additional housing. Most residents would prefer any new housing to be limited to single-family houses with two-car garages, a little larger than the homes they themselves live in.

Local housing policies, for the most part, reflect the preference for owner-occupied single-family homes. For example, a Homebuilder Incentive Program was established to provide $80,000 in construction grants for builders subsidizing the purchase of lots. Each new home is eligible for up to $4,000 as an incentive. Lots must be at least 12,000 square feet. Houses must have at least 1,000 square feet of livable space, be built on a permanent foundation, and have at least a single-stall garage. As a result of the program, five new homes were built in 1998 with a total value of over $700,000.

With an average cost of $140,000, the new homes are obviously not addressing the housing needs of the lower wage or seasonal workers. In previous years, the canning company provided some housing for long-term migrant workers. About 20 of the 120 employees were able to obtain company-owned housing for their stay in the community between April and October. The company-owned housing stock consists of seven "sleeping cabins" with bathrooms in a separate building and six mobile homes that rent for $150 a month. Company-owned

housing must be approved annually by Occupational Safety and Health Administration (OSHA) inspectors.

The rest of the seasonal workers must find a place to live on the open market. One solution was to rent dilapidated trailers near the factory, an option that no longer exists with the closing of the trailer park. With the expansion of year-round employment in the area, obtaining seasonal housing is becoming more and more difficult. A firm in a nearby community had difficulty attracting workers, especially given the shortage of housing in the area. In order to obtain a sufficient workforce, the firm recruited workers from Mexico and leased an old hotel in Olivia to provide housing, busing workers from Olivia to the plant. This arrangement has increased the visibility of single minority men in the community and removed the hotel as a single-room occupancy housing option for migrant workers employed in the canning company. Remaining alternatives for seasonal workers seem limited to "camping out" in nearby parks or campgrounds, doubling up in overcrowded conditions in the few available apartment buildings, commuting long distances, or being homeless.

The distribution of the various types of housing is clearly stratified within Olivia. Housing on the north side, literally the "other side of the tracks," consists of mobile home parks, deteriorating multi-family apartment buildings, and small houses, some of which are poorly constructed and badly maintained. In one area, small houses are made of prefabricated concrete panels. While the rent there is relatively affordable ($450 a month for a three-bedroom house), the concrete roofs, slab floors, and uninsulated walls make the houses difficult to maintain and heat. There are few sidewalks and some streets are without curbs and gutters.

By contrast, the south side contains larger single-family, owner-occupied homes. In the older neighborhoods, large trees shade the streets and sidewalks. Subdivisions of big new houses are located near the golf course or on the edge of town. Multifamily housing on the south side is rare, with the exception of Fairview Place, a new congregate housing development for senior citizens. No mobile homes are located on this side of town.

Housing Needs Are Addressed by the Local Economic Development Authority

While Olivia's prevailing policy orientation is to emphasize private market solutions to housing demands, the local Economic Development Authority (EDA) is an exception. The EDA became involved in housing in the past few years when, as a result of city involvement, a small manufacturing plant was renovated and returned to production. The reopened plant brought seven new families into the community, and it was apparent that there was no housing available for them. As a result, the city identified a need for rental housing to serve new residents, school teachers and other professionals who might prefer to rent rather than own, and older adults seeking independent living alternatives.

The EDA proposed eight new rental housing units in a townhome subdivision as part of their comprehensive economic development strategy. The proposed site for the new development was on city-owned property at the edge of town. Once the development site was identified, residents of the adjacent subdivision protested. Their resistance was strong enough that the city was forced to annex land across the road and fund the extension of sewer and water lines to complete the townhome project. This left the city with a vacant site.

A second development proposal for the original site was a subdivision of 20 single-family, owner-occupied homes in a cluster development. Again, nearby residents protested, demanding that the city provide an extensive greenbelt separating the two developments. They also opposed the cluster development, preferring that the site follow a traditional grid street plan. In spite of the community conflicts, a year later, the EDA was able to win approval for 14 lots in a cul-du-sac layout with city-provided sewer, water, and street improvements. Eight of the lots have been sold and

New rental townhomes. Photo courtesy Ann Ziebarth.

Cabins for seasonal canning company workers. Photo courtesy Ann Ziebarth.

new homes are being built. The site development costs are anticipated to be slightly higher than the $15,000 sales price for the lots but the EDA has agreed to cover any cost over-runs. The development of new housing is expected to alleviate the community's housing shortage.

Yet, community unrest over the development of the townhomes and new subdivision effectively delayed efforts to address the additional housing needed for lower income households. Instead, the EDA initiated a housing rehabilitation grant program. Ten homes are currently being renovated in the north side of town. In addition, the EDA applied for tax credits to support an 18- to 20-unit mixed-income townhouse development. This development would be a public-private collaboration involving a regional nonprofit agency.

Despite these efforts, the need persists for additional housing to accommodate seasonal workers. Prior to the recent merger, canning company officials met with the EDA and the Greater Minnesota Housing Fund to develop a proposal addressing the housing needs of seasonal workers. Unfortunately, the plan was never completed. Those people with the most urgent housing needs have not been included in the community's public discussions or planning. This failure to address housing needs for seasonal workers may result in future community conflicts over housing.

Proactive Housing Strategies Needed

Certainly, the experience linking economic restructuring and social change to housing is not unique to Olivia. However, by selecting one small community as a case study, the social changes brought on by economic shifts and the wider impacts of these changes on the community's housing situation are brought into clearer focus.

The economic restructuring of the agricultural industry, especially in the service and processing sectors, requires a shift in the labor force. In many small towns, these changes bring new people into communities, increase the number of minority residents, widen economic stratification, and strain existing housing stock. As local decisionmakers seek to support the status quo, local policies often fail to meet the diverse, emerging needs of the community. To adapt, communities need to take proactive steps to address new and ongoing housing needs. The EDA's initiative and consensus building illustrates how public involvement in housing can facilitate or inhibit local economic development.

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Skilled Metro Workers Get Highest Payoffs for Using a Computer at Work

Lorin D. **Kusmin**

Workers who use computers on the job receive higher wages, reflecting computer-specific skills as well as broader skills. Even after taking into account differences in personal and job characteristics, industry, and occupational skill levels, there is still a 10-percent premium for use of a computer on the job. This accounts for a small portion of the metro-nonmetro wage gap, since computer use is more common in metro areas. The payoff to using a computer on the job is higher for college graduates and for workers with more experience, suggesting that computer skills may be of limited use to those who are otherwise disadvantaged in the labor market. Furthermore, this premium is only about 5 percent in nonmetro areas, while it is more than 12 percent in metro areas, suggesting that computer training will be of limited benefit to rural residents unless they are prepared to move to urban areas.

Average wages in nonmetro areas are much lower than in metro areas. In 1997, average weekly earnings for nonmetro wage and salary workers were 79 percent of the metro average. This difference is longstanding, and is not fully explained by metro/nonmetro differences in educational level; indeed, the wage gap is greater for workers with higher levels of education (McGranahan and Ghelfi). Metro and nonmetro workers differ in another respect: on-the-job computer use is more common in metro areas than in nonmetro areas (Kusmin). Previous research has indicated that workers who use computers on the job receive higher wages, and that this may help to explain changes in the wage distribution (Krueger). Are there links among these findings? Do differences in on-the-job computer use partly explain the current magnitude of the metro-nonmetro wage gap?

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Metro Area Residents Are More Likely To Use a Computer at Work

The share of employed adults using computers at work nearly doubled between 1984 and 1993. The proportion of jobs involving computer use was higher in metro areas in both years, and the absolute size of the gap has grown slightly over time. In 1984, 18 percent of nonmetro and 28 percent of metro workers used computers on the job; by 1993, 36 percent of nonmetro and 49 percent of metro workers did (fig. 1).

About two-thirds of this gap can be accounted for by metro-nonmetro differences in occupational mix and educational level (table 1). In particular, the concentration of managerial, professional, technical, and clerical workers in metro areas—as well as the larger proportion of college graduates—explains much of the gap in computer use. The growth in this gap between 1984 and 1993 reflects more rapid increases in computer use by occupational, industrial, and educational groups that tend toward urban areas. It also reflects, to a lesser extent, changes in the occupational composition of the urban and rural workforces.

Computer Users Earn More

Computer users earn far more than other workers; the difference in average wages between the two groups is 35 percent in nonmetro areas and 43 percent in metro areas (table 2). Of course, earnings are higher in metro areas for computer users and nonusers alike, so differences in computer use are not the main source of metro-nonmetro wage differences.

But when personal (sex, marital status, veteran status, race and ethnicity, region, metro/nonmetro residence, labor force experience, and education) and job characteristics (unionized, full- or part-time) are taken into account, a somewhat different picture emerges. Computer use on the job now raises hourly

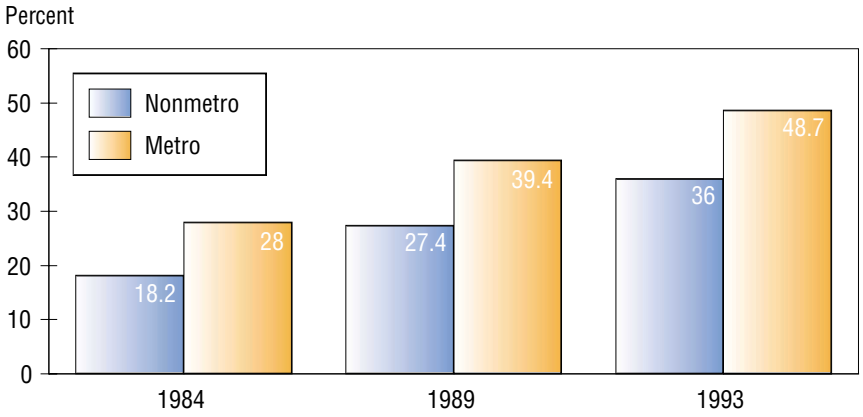
earnings by about 22 percent, still considerable but smaller than with the simple (unadjusted) comparison (fig. 2).

A similar analysis finds that the metro-nonmetro difference in wages is about 17 percent when on-the-job computer use is left out of the model, and about 15 percent when it is taken into account. This suggests that computer use on the job explains only a small portion of metro/nonmetro wage differences. This analysis assumes that the returns to computer use are the same for all workers.

Figure 1

Percentage using computers at work, metro and nonmetro areas, 1984-93

The percentage of the workforce using computers on the job has remained higher in metro areas



Source: Calculated by ERS from Current Population Survey, October 1984, October 1989, and October 1993.

Computer Payoff Is Smaller When Industry and Occupation Are Considered

Is the wage premium for workers using computers on the job actually a payoff to computer-specific skills, or is it due to other factors? It might be explained by higher wages in those occupations or industries where computer use is more common. Or use of a computer on the job may be a proxy for broader capabilities—perhaps cognitive skills, detail orientation, or a willingness to learn—that are rewarded by the labor market. Including measures of industry, occupation, and skill level in our model should allow us to test these possibilities.

The estimated computer wage premium falls from 22 to 18 percent when industry effects are taken into account (fig. 2). When we add controls for eight occupational groups in the wage model, the wage premium falls further to 14 percent. However, this approach may underestimate the return to computer skills since possession of these skills admits individuals to higher paying industries.

To better determine whether computer use is serving as a proxy for other work skills, we used the Department of Labor's Dictionary of Occupational Titles (DOT) data file to compute approximate skill levels for individual occupations along several dimensions (see

Table 1

Components of metro-nonmetro gap in computer use at work, 1993

Most of the gap in computer use is accounted for by differences in occupation or educational level

Item	Computer use gap	Share of total gap
	Percentage points	*Percent*
Gap accounted for by:		
Job characteristics	7.4	58
Occupational mix	5.8	46
Industrial mix	1.0	8
Other job characteristics	.6	5
Personal characteristics	1.9	15
Educational level	2.6	20
Racial/ethnic background	-.9	-7
Other personal characteristics	.2	2
Gap not accounted for:		
Effect of metro residence	3.2	25
Total metro-nonmetro gap	12.7	100

Note: Figures may not add to total due to rounding.
Source: Estimated by ERS using a linear probability regression model and data from the October 1993 Current Population Survey.

Table 2
Average hourly earnings by residence and on-the-job computer use, 1993
Average hourly earnings are higher for computer users in both metro and nonmetro areas

Item	Nonmetro	Metro	Metro-nonmetro difference
	Dollars		*Percent*
Don't use computer	9.01	10.51	16.6
Use computer	12.14	15.07	24.1
	Percent		
User-nonuser difference	34.7	43.4	NA

NA = Not applicable.
Source: Calculated by ERS from Current Population Survey, October 1993.

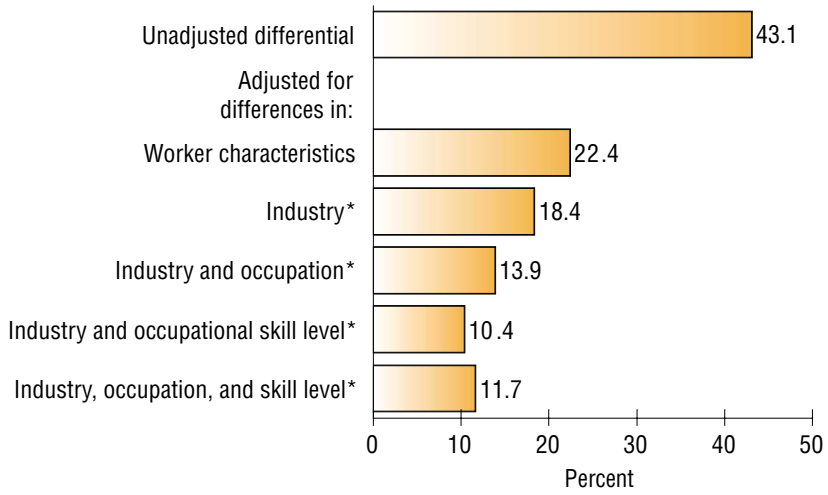
"Data, Methods, and Definitions"). The four DOT occupational characteristics considered here are the "general educational development" levels of the job with respect to math, language skills, and general reasoning, and the extent of "specific vocational preparation" required for the job. When these measures are used instead of the eight occupational categories, the estimated wage effect of computer use falls from 14 to just over 10 percent (fig. 2). This suggests that some of the previously measured premium to direct computer use is actually a return to broader associated skills, although the effect of computer use effect remains statistically significant. If both occupational skill levels and broad occupational categories are taken into account, the estimated direct computer use premium is about 12 percent.

However, the demand for general skills cannot be neatly separated from the demand for computer skills in the labor market as a whole. The increasing need for individuals able to use computers will also raise the payoff to other skills and characteristics that are necessary for or even merely correlated with computer skills—such as mathematical and reasoning skills, education, and patience—even in those jobs that do not require computer use. The payoff to general skills may itself be influenced by the increasing role of computers in the workplace. Thus, the overall effect of the demand for computer skills on the relative wages of more skilled workers is understated if we look only at the individual return on computer skills.

Metro-Nonmetro Wage Gap Transcends Computer Use

Differences in computer use explain only about 4 percent of the overall metro-nonmetro wage gap (table 3). About 30 percent of the gap can be explained by differences in educational level and/or occupational skills, but two-thirds of the wage gap is unexplained by any of the variables in the model. The other variables account for little of the metro-nonmetro gap, either because their effects on wages are weak or because the average metro-nonmetro difference in these variables is small. Some of the wage gap may reflect cost-of-living differences between metro and nonmetro areas, but area-specific cost-of-living data that would allow us to quantify this are not available.

Figure 2
Wage premium for computer use, 1993
The wage premium persists when other job and worker differences are considered



*Includes worker characteristics.
Source: Calculated by ERS from Current Population Survey, October 1993.

Payoff for Computer Use Is Smaller in Nonmetro Areas

The premium for on-the-job computer use is much larger in metro areas—or, equivalently, the premium for metro residence is much larger for those who use a computer. After industrial mix and occupational skill levels are taken into account, the "unexplained" metro-nonmetro wage gap for those workers who do not use computers on the job is less than 11 percent, while the corresponding value for on-the-job computer users is 19 percent. As a result, while the estimated computer use wage premium is only about 5 percent in nonmetro areas, it is more than 12 percent in metro areas.

Thus, while lower rates of computer use in nonmetro areas account for relatively little of the metro-nonmetro wage gap, lower returns to computer use are a substantial component of that gap. In particular, the more than one-third of all nonmetro workers who use computers on the job appear to lose out on an additional wage premium of 8 percent they would have received in metro areas.

This last result is broadly consistent with past work at ERS (McGranahan and Ghelfi; McGranahan and Kassel, 1995) indicating that the payoff to higher levels of education is greater in metro than in nonmetro areas and that, at least until recently, those with higher skill levels were more likely to migrate to metro areas. So the skills gap and associated wage gap in rural areas seems to reflect weaker demand for skills in these areas, more so than any deficit in the supply of skills. Stronger demand for skills in urban areas, as expressed by greater wage premiums for those skills, encourages skilled workers to migrate, leaving lower average skill levels in the remaining rural population. Thus, average rural wages are lower than urban wages both because the average skill level of rural workers is lower and because the wage premium paid to remaining skilled workers is lower.

Computer Premium Varies With Worker and Job Characteristics

The personal monetary payoff to computer use is sensitive to several factors, including education, skills, union membership, race/ethnicity, and labor force experience. College graduates are more likely than high school graduates to have computer skills. If the demand for such skills were similar in the jobs held by high school graduates and college graduates, we would expect the payoff on those skills to be greater among high school graduates, because such skills are scarcer among them.

Instead we find that the return to computer use is about 10 percentage points higher for those with at least a college degree than for high school graduates. This suggests a higher demand for computer skills in the types of jobs filled by college-educated persons. Or else the types of computer skills sought in many college-educated workers (for example, programming skills or facility with complex accounting programs) are scarcer relative to demand than the skills associated with on-the-job computer use by high school graduates (for example, data entry or word processing).

On-the-job use of computers interacts strongly with specific vocational preparation in the wage model. Computer use appears more profitable in jobs with extensive vocational preparation, and equivalently, the return to this preparation is higher in jobs where a computer is used. In fact, the

Table 3
Factors accounting for metro-nonmetro wage gap
Differences in education, occupation, and computer use account for about one-third of the metro-nonmetro wage gap

Item	Wage difference	Share of total gap
	Percent	
Education	3.2	16.2
Occupational skill levels	2.7	13.7
Race and ethnicity	-.9	-4.4
Industry	-.05	-.2
Computer use	.8	4.2
Other[1]	.8	4.0
Total explained	6.7	33.5
Unexplained	13.3	66.5
Total metro-nonmetro gap	20.0	100.0

[1]Includes gender, marital status, union membership, veteran status, part-time status, labor force experience, and region.
Source: Calculated by ERS from Current Population Survey, October 1993.

Data, Methods, and Definitions

Data

Data for this analysis are from responses to the Current Population Survey (CPS). The CPS is conducted monthly by the Census Bureau to collect data on employment and unemployment. Data are collected from a sample of approximately 57,000 households, chosen to represent the civilian noninstitutional population of the United States.

Selected rounds of the CPS provide data on the use of computers. The data used here come primarily from the October 1993 CPS, which asked about computer use on the job, at home, and at school. The question most relevant to this article was "Does...directly use a computer at work?"

The sample used in this study includes respondents who were employed, who were asked about weekly earnings in the October survey (a quarter of all respondents are asked about earnings in any single month), and who responded to all of the questions that are used in the analysis, for a total of about 14,000 unweighted observations.

Methods—Explanation of Wage Differences

For this study, a series of conventional wage regression models was estimated, with on-the-job computer use and other variables used to explain wage differences. The specific variable being explained by these models was the logarithm of the hourly wage, or reported weekly earnings divided by usual hours worked. The decomposition of urban-rural wage differences into explained and unexplained components follows the model used in McGranahan and Kassel (1996). In that model, each explained component of the difference between the groups' wages corresponds to one of the variables in the wage model, and equals the coefficient on that variable in the wage model multiplied by the difference between the two group means for that variable. The unexplained component is the residual after all explained components have been subtracted from the overall wage difference between the two groups.

Definitions

Occupational Skill Levels

The Dictionary of Occupational Titles (DOT) file was used to assign skill levels to occupations. The DOT contains quantitative assessments of the characteristics of many narrowly defined occupations. In order to associate skill levels with individuals in the CPS data, these occupations had to be aggregated to correspond to the level of occupational detail available on the CPS. Because employment totals in DOT-level occupations were not readily available for weighting, equal weights were assigned to each DOT-level occupation in estimating the average characteristics of individual CPS-level occupations. This procedure could lead to overestimates or underestimates of the average skill levels for CPS-level occupations. However, for the skills considered in this study, the dispersion of skill level values among the various DOT-level occupations within a single CPS-level occupation was usually small relative to the dispersion among CPS-level occupations, so any misestimates are likely to be small.

returns to specific vocational preparation are more than three times as great when computer skills are used on the job.

The premium for computer use appears to be greater for racial and ethnic minorities. The estimated premiums are 6-8 percentage points higher for Blacks, Hispanics, and Asian-Americans than for non-Hispanic Whites. Worker experience is also a factor. The premium for computer use is relatively small for new workers, while it is much larger for those in their peak earning years.

Since metro jobs and workers are more likely to have characteristics associated with large premiums for computer use, these differences might have explained the apparent metro-nonmetro gap in the wage premium described earlier. However, this is not the case.

Computer Wage Premiums Reflect Both Computer-Specific Skills and Broader Skills

An area of some debate is whether the apparent return to computer use on the job reflects a return to specific computer skills or whether computer use is a proxy for other skills or job characteristics. An answer to this question would help to determine whether public expenditure on the development of computer skills per se is a good investment of education or job training funds.

Definitions (Cont.)

Metro and Nonmetro Areas

In this article, "metro" refers to metropolitan areas as designated by the Office of Management and Budget, while "nonmetro" refers to all other areas. The metro or nonmetro status of respondents is based on their place of residence, not their place of work. In 1990, 11.5 percent of workers living in nonmetro areas commuted to jobs in metro areas. For 1993, the metro-nonmetro designation of residence in the CPS was based on the 1980 Census of Population.

Labor Force Experience

Labor force experience (LFE) is not directly measured in the CPS. Thus, LFE (in years) has been estimated from the formula LFE = Age in Years - Estimated Years of Education - 6, where estimated years of education are derived from the highest level of education completed. The term LFE^2 is commonly included in wage regressions to capture the widely observed nonlinear relationship between experience and wages (on average, wages rise rapidly early in a working career, begin to level off, and may even decline near the end of working life).

Industry

A 22-industry breakdown of employment was used to estimate industry effects. The industries for which wage effects were estimated were agriculture; mining; construction; durable goods manufacturing; nondurable goods manufacturing; transportation; communications; utilities and sanitary services; wholesale trade; retail trade; finance, insurance, and real estate; private household services; business services; personal services; entertainment and recreation services; hospitals; medical services (except hospitals); education services, social services; professional services; forestry and fishing; and public administration. With retail trade treated as the base (omitted) category, the estimated wage differentials associated with these industries ranged from -13 percent for private household services to + 61 percent for mining.

Occupation

A nine-occupation breakdown of employment was used to estimate occupational group effects. Wage effects were estimated for managers; professionals; technical occupations; sales occupations; clerical occupations; service occupations; craft occupations; operators; and laborers. With sales occupations treated as the base (omitted) category, the estimated wage differentials associated with these occupational groups ranged from -18 percent for laborers to + 18 percent for professionals.

Our results suggest that the apparent payoff to on-the-job computer use reflects returns to both computer-specific skills and broader skills. Taking into account other skill measures as well as occupational and industry category variables, the estimated size of the computer wage premium is resduced by more than half, from 22 percent to 10 percent. However, the latter figure is still substantial and statistically significant.

Conclusions

Is computer use a factor in explaining the metro-nonmetro wage gap? Computer use on the job is higher in metro areas, partly due to differences in occupational mix and educational attainment between metro and nonmetro areas. This gap in use, combined with the computer wage premium, appears to explain a small percentage of the metro-nonmetro wage gap.

However, workers in nonmetro areas benefit less than metro workers from computer skills, since the premium paid for working with a computer appears to be substantially less outside of metro areas. This inequity persists even after other differences between metro and nonmetro workers are taken into account, and is consistent with past work indicating that the demand for worker skills is weaker in nonmetro areas. So, while training in computer skills may benefit nonmetro workers, they may have to relocate in order to obtain the most benefit from such training.

Photo courtesy PhotoDisc, Inc.

These conclusions may have to be modified as the economic significance of the Internet, not reflected in the data here, continues to explode. The Internet has likely increased the relevance of computer skills in many occupations. It may also lessen the importance of physical proximity to customers, clients, and information resources in some industries, allowing firms in relatively isolated areas to participate in the economy in ways that previously required location in metro areas. In turn, this may increase the demand for workers with computer skills and other skills in less densely settled areas.

The computer wage premium is greatest for workers who also have higher levels of education and/or specific training. Thus, computer skills may have limited value to those less-skilled workers who are often the focus of public policy.

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Less-Educated Workers Face Limited Opportunities To Move Up to Good Jobs

Lorin D. **Kusmin**
Robert M. **Gibbs**

Only one-fifth of the jobs held by less-educated workers are in "starter" occupations associated with subsequent well-paying occupations. So while pathways to advancement exist, they may be inaccessible to many less-educated workers. Minorities and especially women make up a disproportionately large share of dead-end employment, but the shares of starter, goal, and dead-end jobs in rural and urban labor markets are similar.

Changing occupations is often essential to a worker's career development, and can bring increased earnings and status. In 1996, about half of all occupational changes among U.S. workers involved a move from a lower skill to a higher skill job. A voluntary change improves the match between worker and job, resulting in greater productivity. Occupational mobility for many workers proceeds from entry-level work to work requiring higher levels of training and experience. Each successive job, in these cases, can provide a new opportunity both for increasing human capital and enjoying its rewards.

Largely due to data limitations, few studies have attempted to compare career pathways for workers who enter the labor force with different levels of education and training, particularly those with limited human capital. But recent shifts in Federal policy have lent a new urgency to such investigations. The "work first" philosophy of welfare reform, for example, emphasizes immediate employment over formal job preparation, and implicitly assumes that workers will be able to use the skills and knowledge gained in initial jobs to qualify for better paying jobs. This article reports progress on work using the 1996 occupational mobility supplement to explore the career dynamics of workers without a college education. The study identifies 17 occupations requiring little training or experience (starter jobs) that often lead to employment in well-paid occupations typically requiring higher skill levels (goal jobs). However, 27 other occupations accessible to workers with no more than a high school diploma are identified as "dead-ends," in that they typically yield low earnings and are unlikely to lead to better employment.

Career paths for less-educated workers remain strongly segregated by gender. Although women comprise 43 percent of the less-educated workforce, they hold just 21 percent of the jobs in goal occupations, compared with 56 percent of the jobs in dead-end occupations. The concentration of women in occupations offering less upward mobility has important implications for gender differences in long-term earnings and occupational status. Occupational steering (the practice of encouraging women to take jobs traditionally held by women) in public job assistance programs reinforces this trend.

Other findings on race, ethnicity, and urban-rural status yield less striking differences than suggested by earlier research. Black and Hispanic workers, like women, are about half as likely as other workers to hold goal jobs, and more likely to be in dead-end occupations. However, they appear to have better access than women to the full range of starter and goal occupations. Although rural areas have a lower share of well-paying or high-status occupations than urban areas, rural workers are just as likely to hold starter jobs and advance to goal jobs as urban workers.

Identifying Pathways to Good Jobs for Less-Educated Workers

In 1996, there were about 33 million civilian workers in the United States age 18-44 with no college education (table 1). Of these workers, 43 percent were women, 14 percent were Black, 17

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Table 1
Selected characteristics of occupation types, 1996
About half of the less-educated workforce is employed in dead-end and other low-mobility jobs

Occupation type	Occupations	Workers	Mean age	Mean weekly wage
	Number	*Thousands*	*Years*	*Dollars*
Goal jobs	157	9,861	33.7	557
Starter jobs	17	4,633	30.3	350
Dead-end jobs	27	10,934	31.4	323
Other high-mobility jobs	23	878	31.2	375
Other low-mobility jobs	179	6,527	31.5	354
Combined HSG/NHSG age 18-44[1]	403	32,834	31.9	405

[1]High school graduates and non-high school graduates.
Source: Calculated by the authors using data from the 1996 Current Population Survey.

percent were Hispanic, and 22 percent lived in nonmetro areas. Average weekly earnings for these workers were $405, or $21,060 for a full-year worker, which was 131 percent of the poverty threshold for a family of four in 1996. These earnings levels suggest that many less-educated workers face limited opportunities for career advancement and earnings growth, or are unable to use them. Recent government policy initiatives, such as the Workforce Investment Act of 1998 and State programs to subsidize college attendance, were designed to capitalize on the strong association between education and training and career advancement.

Occupations often link to form a pathway to better jobs. While previous studies have emphasized the lack of such pathways among less-educated workers, these pathways do exist, although they may not be the norm. This article identifies three "types" of occupations—goal, starter, and dead-end—to illustrate the role of occupational change in helping workers move up the ladder.

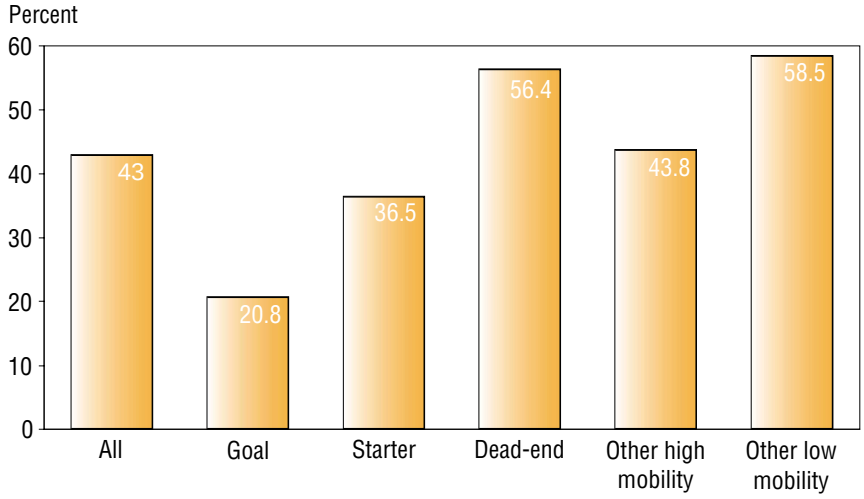
Goal Jobs

Thirty percent of less-educated (18-44 with no college) workers, or 9.9 million, were employed in goal jobs in 1996. Average weekly earnings for these workers were $557, or 38 percent above the average for all such workers. Among the less-educated, women, Blacks, and Hispanics were less likely than White men to be employed in these goal jobs.

In all, 157 occupations were identified as goal jobs. However, just 20 of these occupations accounted for about 6.5 million employed high school graduates (HSG's) and non-high school graduates (NHSG's), or about two-thirds of all of those in goal jobs. Each of these well-paying occupations employed at least 100,000 HSG's and NHSG's in 1996, with weekly earnings ranging from $494 for sales supervisors, welders, and cutters to $645 for police officers and detectives (table 2). About one in every eight goal jobs held by less-educated workers belongs to a truck driver. Managerial and administrative occupations account for 22 percent of all goal jobs, with craft, precision production, and repair jobs also well-represented.

Women make up a much smaller share of employment in goal jobs, 21 percent, than in the less-educated working population as a whole (43 percent) (fig. 1). And

Figure 1
Women's share of less-educated employment by occupation type, 1996
The share of women in goal jobs is about half their share in the overall less-educated workforce



Source: Calculated by authors using data from the 1996 Current Population Survey.

Table 2

Twenty goal jobs with the largest employment in 1996[1]

Truck driving accounts for one in eight goal jobs

Occupation	Average weekly earnings	Employment
	Dollars	*Thousands*
Truck drivers	510	1,296
Supervisors and proprietors, sales occupations	494	873
Managers and administrators, n.e.c.	616	735
Carpenters	501	522
Supervisors, production occupations	577	432
Welders and cutters	494	331
Electricians	611	241
Sales representatives—mining, manufacturing, and wholesale	554	231
Industrial machinery repairers	571	220
Machinists	548	217
Plumbers, pipefitters, and steamfitters	564	203
Supervisors—construction, n.e.c.	643	167
Specified mechanics and repairers, n.e.c.	503	166
Printing press operators	518	156
Bus, truck, and stationary engine mechanics	504	142
Operating engineers	614	130
Construction trade, n.e.c.	500	119
Heating, AC, and refrigeration mechanics	500	107
Police and detectives, public service	645	105
Correction institution officers	529	102

n.e.c. = Not elsewhere classified.

[1]Employment and earnings for high school graduates and non-high school graduates.

Source: Calculated by the authors using data from the 1996 Current Population Survey.

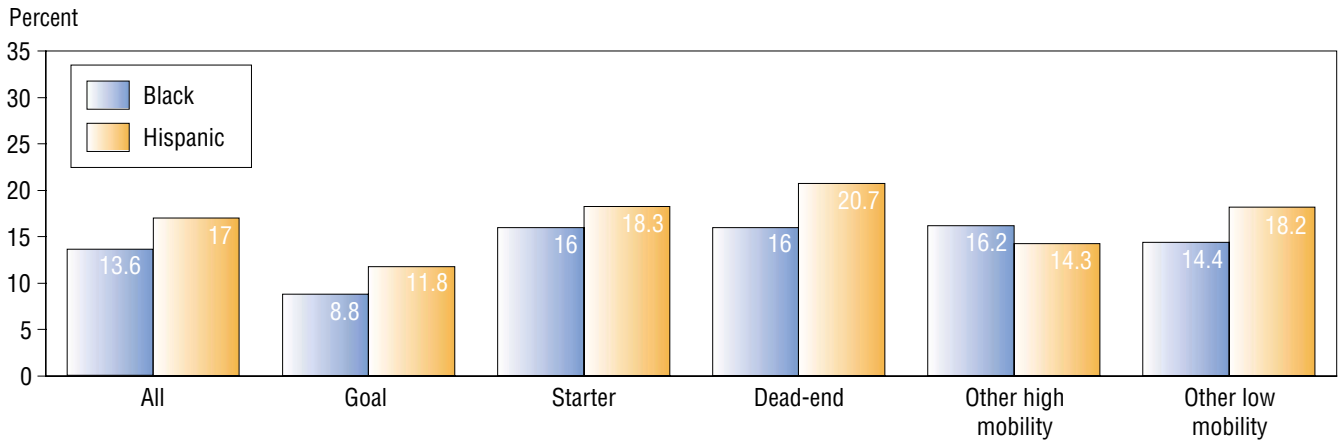
those who do have goal jobs are highly concentrated in just a few occupations (table 3). Among the 20 goal jobs with the largest employment in 1996, women accounted for more than 30 percent of employment in just 3 of them—sales supervisors, managers not elsewhere classified, and sales representatives in mining, manufacturing, and wholesaling. They accounted for 10-30 percent of employment in just 3 occupations, while they accounted for 5 percent or less of employment in 10 occupations. Providing better paying jobs for women without a college education may require either opening up jobs currently dominated by men or hiking the wages and status of jobs currently open to women that would lead to improvements in their wages.

Blacks and Hispanics are also under-represented in goal jobs, but unlike women, are less concentrated in a small subset of these jobs (fig. 2 and table 3). Although Blacks account for just 13.5 percent of employment among less-educated

Figure 2

Black and Hispanic share of less-educated employment by occupation type, 1996

Blacks and Hispanics are under-represented in goal jobs, but over-represented in starter jobs



Source: Calculated by authors using data from the 1996 Current Population Survey.

Table 3

Women and minority groups in major goal occupations, 1996

Women are highly segregated within goal occupations

Occupation	Women	Occupation	Black	Occupation	Hispanic	Occupation	Nonmetro
	Percent		*Percent*		*Percent*		*Percent*
Sales supervisors	45.1	Police/ detectives	19.6	Welders and cutters	17.8	Industrial machinery repairers	40.4
All jobs	43.0	Correction institution officers	18.0	**All jobs**	17.0	Correction institution officers	40.4
Managers, n.e.c.	37.1	Construction trades, n.e.c.	17.3	Carpenters	16.1	Operating engineers	35.6
Sales representatives[1]	33.7	**All jobs**	13.5	Production supervisors	16.1	Production supervisors	29.6
Correction institution officers	20.4	Truck drivers	12.9	Mechanics/ repairers, n.e.c.	15.6	Welders and cutters	29.2
Production supervisors	17.6	Welders and cutters	10.4	Truck drivers	15.1	Bus/truck/ stationary engine mechanics	28.2
Printing press operators	11.2	Operating engineers	9.9	Construction trades, n.e.c.	15.1	Truck drivers	25.3
Mechanics/ repairers, n.e.c.	9.1	Mechanics/ repairers, n.e.c.	8.9	Construction supervisors, n.e.c.	14.0	Carpenters	24.9
Machinists	7.3	Printing press operators	8.2	Printing press operators	13.0	Machinists	24.3
Police/detectives	7.2	Carpenters	8.0	Plumbers	11.2	Construction trades, n.e.c.	24.3
Welders and cutters	5.9	Electricians	7.4	Heat, AC, and refrigeration mechanics	11.1	**All jobs**	22.3
Truck drivers	5.0	Sales supervisors	6.8	Industrial machinery repairers	10.9	Construction supervisors, n.e.c.	21.6
Industrial machinery repairers	4.7	Managers, n.e.c.	6.3	Sales supervisors	10.5	Plumbers	21.5
Operating engineers	3.1	Bus/truck/ stationary engine mechanics	6.3	Electricians	10.3	Mechanics/ repairers, n.e.c.	21.4
Heat, AC, and refrigeration mechanics	2.4	Production supervisors	6.2	Correction institution officers	10.2	Sales supervisors	19.8

n.e.c. = not elsewhere classified.

[1]Mining, manufacturing, and wholesale.

Source: Calculated by the authors using data from the 1996 Current Population Survey.

workers age 18 to 44, and just 8.8 percent in goal occupations, they account for less than 5 percent of employment in only 3 of the top 20 goal jobs (sales representatives in mining, manufacturing, and wholesaling; industrial machinery repairers; heating, air conditioning, and refrigeration mechanics). Similarly, Hispanics, who account for 17 percent of employment in our study group and for 11.8 percent of employment in goal jobs, make up at least 5 percent of the employed in all 20 top goal jobs, and at least 10 percent in 14 of the top 20.

The distinctive nonmetro occupational mix, with its relatively large share of jobs requiring few or no skills, suggests that goal jobs might be scarcer in nonmetro labor markets. However, nonmetro workers are about as likely to work in goal jobs as metro workers, except for police and detective work (fig. 3). Workers in goal jobs averaged about 2 years older than all workers covered by the study, a substantial difference considering that workers 45 and over are excluded.

Starter Jobs

The 17 occupations identified as "starter" jobs, with high potential to lead to goal jobs, accounted for 4.6 million jobs, or 14 percent of workers covered in the study (table 1). An additional 23 high-mobility occupations with less than 1 million jobs qualified as starter jobs based on their association with goal jobs, but were too rare in the survey to measure "transition-to-goal" rates precisely. All but 3 of the 17 starter occupations employed at least 100,000 HSG's and NHSG's (table 4). Nonconstruction laborers and assemblers make up the largest share of these occupations, with over half a million workers each. Workers in starter jobs were about 1½ years younger than all less-educated workers, and were paid about 14 percent less. In fact, their earnings are only slightly higher than those of dead-end occupations, but the range is quite large—from $229 a week for waiters' assistants to just over $400 for noninsurance-related investigators/adjusters and assemblers. Starter jobs exhibit a greater occupational range than do goal jobs, and are more likely to be found within the operator, fabricator, and laborer group.

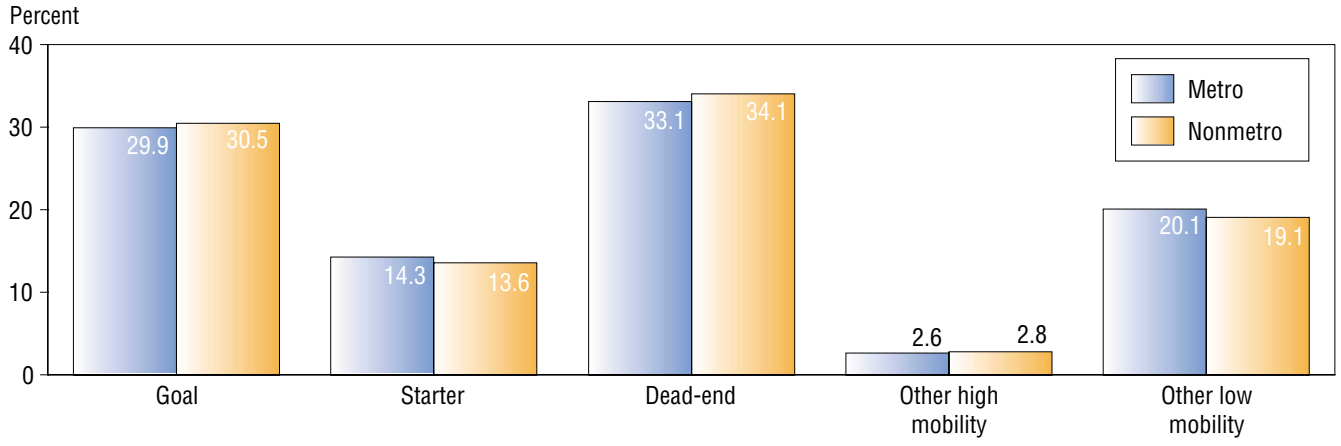
Women are somewhat underrepresented in starter jobs (36 percent) relative to their 43-percent share of the less-educated working population. However, they are over-represented in four white-collar starter occupations: bank tellers (91 percent), data entry keyers (91 percent), records clerks (86 percent), and investigators/adjusters, except insurance (83 percent) (table 5). Just 3 of the 17 starter jobs (garage-related occupations, construction laborers, and roofers) are more than 95 percent male. Thus, women's representation in starter occupations appears to be greater than in goal occupations. However, because the identification of starter jobs has been based on relatively few observed transitions, caution needs to be exercised in interpreting these results.

Blacks and Hispanics are proportionately represented or over-represented in starter occupations

Figure 3

Distribution of jobs by occupation type, metro and nonmetro

The occupation types of nonmetro workers are similar to those of metro workers



Source: Calculated by authors using data from the 1996 Current Population Survey.

Table 4
Starter jobs, earnings and employment, 1996[1]
Laborers form the largest starter occupation

Occupation	Average weekly earnings	Employment
	Dollars	*Thousands*
Laborers, except construction	378	723
Assemblers	403	628
Construction laborers	390	474
Stock handlers and baggers	282	473
Freight, stock, and material handlers, n.e.c.	375	365
Sales workers, other commodities	294	362
Data entry keyers	360	231
Waiters'/waitresses' assistants	229	228
Investigators and adjusters, except insurance	404	228
Guards and police, except public service	353	214
Bank tellers	318	156
Vehicle washers and equipment cleaners	323	153
Roofers	389	112
Graders and sorters, except agricultural	262	111
Garage and service station-related occupations	316	97
Records clerks	385	54
Miscellaneous textile machine operator	373	24

n.e.c. = Not elsewhere classified
[1]Employment among high school graduates and non-high school graduates.
Source: Calculated by the authors using data from the 1996 Current Population Survey.

relative to their numbers among the less-educated workforce. They are less likely to be either highly concentrated or scarce to the extent that women are in specific starter occupations, each ethnic group accounting for least 5 percent of employment in all 17 occupations and neither accounting for more than 40 percent of employment in any of the 17.

Dead-End Jobs and Other Low-Mobility Jobs

Twenty-seven occupations with 10.9 million workers, or 33 percent of less-educated workers, were "dead-end" jobs, with near-average or below-average earnings and with near-average or below-average prospects for moving into a better paying job (table 1). Among these are such common occupations as cashier, secretary, bookkeeper, waiter/waitress, cook, nursing aide/orderly, janitor, farmworker, and automobile mechanic. Another 6.5 million, or 20 percent of the total, were in 179 occupations labeled as "other low-mobility jobs." These also had near-average or below-average earnings, but their estimated transition-to-goal rates were less reliable because of the small number of observations in each occupation.

Together, these two groups account for just over half of the study total. The demographics of these two groups are similar. Women are heavily over-represented in both—56 percent of the first group and 58 percent of the second—and Hispanics are slightly over-represented—21 percent of the first group and 18 percent of the second. Blacks are slightly over-represented in dead-end jobs, but not in other low-mobility jobs. The average pay level is particularly low for "dead-end" jobs—20 percent below the average for the study group, and, at $323 per week, just 5 percent above the poverty threshold for a family of four.

Transition From Starter to Goal Job Takes Time

Between 1995 and 1996, workers initially in starter jobs had an 8.3 percent probability of moving into a goal job (table 6). This equates to a greater-than-50-percent chance of moving into a goal job within 8 years. However, the high overall occupational mobility rate for these workers, over 23 percent per year, suggests that many will move from starter jobs into other low-paying jobs before they move up.

Rates of occupational mobility are relatively low for those already in goal jobs—about 1 in 12 can expect to change occupations in a year. This is not surprising, given that these are more desirable occupations and that the workers holding them are slightly older than the average. When these workers do change occupations, however, fewer than half move into other goal jobs, indicating that many of these transitions reflect adverse events.

Dead-end jobs have an overall occupational mobility rate of about 14 percent per year, intermediate between the rates for goal jobs and starter jobs. Less than 3 percent advance from these jobs into goal jobs. Other low-mobility jobs show similar mobility rates.

Within each occupational mobility type, the differences across demographic groups in transition-to-goal rates are not striking. However, transition-to-goal rates are

Table 5

Representation of women and minority groups in starter jobs, 1996

The distribution of women and minorities across starter occupations is generally more equitable than across goal occupations

Occupation	Women	Occupation	Black	Occupation	Hispanic	Occupation	Nonmetro
	Percent		*Percent*		*Percent*		*Percent*
Bank tellers	91.4	Guards/police, except public service	33.8	Graders and sorters, except agricultural	39.7	Miscellaneous textile machine operator	31.2
Data entry keyers	90.6	Miscellaneous textile machine operator	28.5	Waiters'/waitresses' assistants	31.8	Freight/stock/ material handlers, n.e.c.	28.5
Records clerks	86.5	Freight/stock/ material handlers, n.e.c.	21.1	Vehicle washer/ equipment cleaners	29	Laborers, except construction	28.3
Investigators/adjusters, except insurance	83.3	Vehicle washer/ equipment cleaners	20.6	Construction laborers	24.6	Assemblers	25.6
Sales workers, other commissioned	72.1	Garage/service station-related occupations	19/3	Roofers	22.1	Construction laborers	24.4
Graders and sorters, except agricultural	55.9	Assemblers	18	Stock handlers and baggers	19.4	Roofers	22.8
Miscellaneous textile machine operator	43.2	Laborers, except construction	17.8	Records clerks	17.5	Graders and sorters, except agricultural	21.5
Assemblers	42.6	Records clerks	16.4	Assemblers	17.5	Stock handlers and baggers	20.6
Waiters'/waitresses' assistants	40.7	Data entry keyers	15.9	Guards/police, except public service	16.4	Vehicle washer/ equipment cleaners	19.6
Stock handlers and baggers	30.8	Waiters'/waitresses' assistants	13.2	Laborers, except construction	16.2	Bank tellers	19.5
Guards/police, except public service	22.5	Roofers	12.9	Freight/stock/material handlers, n.e.c.	14.5	Garage/service station-related occupations	19.4
Laborers, except construction	19.3	Graders and sorters, except agricultural	12.6	Bank tellers	13.3	Records clerks	18.5
Freight/stock/material handlers, n.e.c.	11.4	Stock handlers and baggers	12.4	Data entry keyers	13.1	Sales workers, other	17.4
Vehicle washer/ equipment	8.8	Construction laborers	21.1	Garage/service station-related occupations	12.7	Investigators/ adjusters, except insurance	14.4
Garage/service station-related occupations	3.9	Investigators/ adjusters, except insurance	10.7	Sales workers, other commissioned	11.2	Guards/police, except public service	12.2
Construction laborers	3.3	Sales workers, other	10.6	Miscellaneous textile machine operator	10	Waiters'/waitresses' assistants	
Roofers	0.6	Bank tellers	6.6	Investigators/ adjusters, except insurance	9.1	Data entry keyers	7.5

Source: Calculated by the authors using data from the 1996 Current Population Survey.

Table 6
Rates of occupational mobility by occupation type and demographic group, 1996
Transition rates from starter to goal jobs are much lower for women than for men

Initial occupational mobility type	Total transition rate[1]	Rate of transition to goal jobs				
	Overall[2]	Overall	Female	Black	Hispanic	Nonmetro
		Percent				
Goal jobs	8.5	3.3	3.4	1.5	2.1	2.8
Starter jobs	23.4	8.3	6.7	7.6	6.7	8.7
Other high-mobility jobs	29.0	11.8	3.1	6.1	19.7	15.0
Dead-end jobs	13.6	2.7	2.5	1.6	2.5	3.3
Other low-mobility jobs	12.5	1.0	0.7	0.1	0.4	1.4

[1]The total transition rate is the percent of all workers in the occupation types who changed occupations between 1995 and 1996.
[2]High school graduates and non-high school graduates, age 18-44.
Source: Calculated by the authors using data from the 1996 Current Population Survey.

lower than overall transition-to-goal rates for women and for Hispanics in four of the five occupational mobility types, and for Blacks in all five types. In contrast, the nonmetro transition-to-goal rate is higher than the overall rate in four of the five mobility types. The nonmetro advantage may be due to the greater concentration in metro areas of minority groups with lower transition-to-goal rates, or to the greater nonmetro concentration of manufacturing, a key employer of skilled blue-collar labor.

Most Entry-Level Jobs Are Not Key Entry Points to Goal Occupations

Although there are a set of occupations that are good starting places to enter goal jobs, the skills required in these starter occupations may render many of them inaccessible to workers with limited education and training. On the other hand, a well-paying job does not always require a great deal of training or prior experience. How likely, then, are workers just entering the workforce to take starter jobs (or perhaps even goal jobs) immediately? If entry-level employment consists mostly of dead-end occupations, most workers with limited education face a long path to jobs offering adequate pay levels.

We identified entry-level occupations for HSG's and NHSG's according to the 11 occupational skill categories produced by the Bureau of Labor Statistics (see "How 'Starter,' 'Goal,' and 'Entry Level' Jobs Are Defined"). While all starter jobs are entry-level jobs, only 21 percent of entry-level jobs can be clearly labeled starter jobs (24 percent if small-sample occupations not meeting the transition rate threshold are included) (table 7). About 15 percent of entry-level jobs qualify as goal jobs, but over a third of these are found in one occupation—truck driving. Thus, over half of entry-level jobs for less-educated workers have low earnings and do not lead directly to jobs with higher earnings.

Meanwhile, more than 60 percent of nonentry-level jobs are goal jobs, and none qualify as starter jobs; further, about two-thirds of goal jobs are nonentry level. On the other hand, 100 percent of starter jobs and 77 percent of dead-end jobs are entry level. The cross-classification of jobs by entry-level status and mobility type highlights two key features. First, the transition from starter to goal job closely tracks the movement from entry level to nonentry level, suggesting that many less-educated workers follow upward career trajectories just as college-educated workers do. Second, the large proportion of entry-level dead-end jobs in the less-educated labor market—38

Table 7
Entry-level status by occupation type, 1996
Starter and goal occupations comprise less than 40 percent of all entry-level jobs for less-educated workers

Type	Entry level	Nonentry level
	Percent	
Goal	15	62
Starter	21	0
Dead-end	38	23
Other nonclassified	26	15

Source: Calculated by the authors using data from the 1996 Current Population Survey.

Table 8

Predicted employment change by major occupation group, 1996-2006

Occupation groups with the highest starter and goal job concentrations face below-average growth

Occupational group	All workers	HSG's/ NHSG's[1] in goal jobs	HSG's/ NHSG's[1] in starter jobs	Employment growth, 1996-2006
		Percent		
Total	100.0	100.0	100.0	14.0
Executive, administrative, managerial	10.2	13.5	0.0	17.2
Professional specialty	13.7	1.8	0.0	26.6
Technicians	3.5	3.0	0.0	20.4
Marketing and sales	11.1	13.5	7.8	15.5
Administrative support	18.1	4.0	14.4	7.5
Service	16.1	2.9	9.5	18.1
Agriculture, forestry, fishing	2.9	0.1	0.0	1.0
Precision production, craft, repair	10.9	38.8	2.4	6.9
Operators, fabricators, laborers	13.5	22.4	65.8	8.5

[1]High school graduates and non-high school graduates.

Source: Calculated by the authors using data from the 1996 Current Population Survey.

percent—implies autonomous, insulated submarkets for less-educated workers. Together, these features point to a duality within low-skill markets, in which point of entry determines whether workers follow a conventional career track or tend to move along a more lateral path among low-skill jobs. The findings here only suggest such a job structure, and would need additional analysis and a more generous sample size to verify.

Opportunities for Less-Educated Workers To Move Up Are Limited

What are the prospects for limited-education jobs that provide good pay? We compare the distribution of goal jobs, starter jobs, and all jobs across major occupational groups for which employment projections are available from 1996 to 2006. Expected employment growth will be below-average in goal and starter jobs relative to the national economy (table 8). About 60 percent of goal jobs and 68 percent of starter jobs are concentrated in craft/repair and operator/fabricator/laborer occupations, which are predicted to grow at about half the rate of the economy as a whole (14 percent over 10 years). Similarly, goal and starter jobs for less-educated workers are underrepresented among the fast-growing service, professional, and technical occupations.

High school graduates and those without high school diplomas can and do get jobs in well-paid occupations. Furthermore, while most of these well-paying occupations are not entry level, they are often directly accessible from other, entry-level occupations. Goal jobs and starter jobs together comprised over half the employment of HSG's and NHSG's in 1996. Unfortunately, these jobs are also concentrated in occupational groups with very limited growth potential over the next decade. Without parallel estimates of labor supply growth, it is hard to determine whether it will be more difficult to enter a well-paying job with limited education. The relative supply of noncollege-educated workers will likely have to decline in order to accommodate the predicted shifts in labor demand.

Of more immediate concern, however, is the predominance of "male-dominated" jobs among the goal occupations. Opportunities for less-educated women, such as women exiting Temporary Assistance for Needy Families (TANF), will be particularly limited unless the gender composition of current goal jobs shifts dramatically, or unless women become better paid. Such a shift is occurring, as in such well-paying jobs as sales and management, where women are well represented. These jobs are likely to see strong growth (15-17 percent), so the distribution of new jobs through 2006 will probably be more favorable for women than the distribution of existing jobs.

Women's educational attainment is about the same as men's, and for young women, it is now slightly higher. Occupational segregation, holding education constant, therefore remains a critical source of male-female wage disparity. For minorities, low educational attainment per se remains a problem, with occupational segregation within education levels a secondary source of disparity with Whites.

Rural workers are as likely to hold starter jobs and goal jobs as are urban workers, bucking conventional notions of rural-urban occupational disparities. This may be

How 'Starter,' 'Goal,' and 'Entry-Level' Jobs Are Defined

Identifying 'Goal' Jobs

To identify "good" (well-paying) occupations available to those with a high school education or less, information on individual workers' earnings was drawn from all 12 months of the 1996 Current Population Survey. Average weekly earnings were calculated for each occupation represented in the sample, which included employed persons age 18-44 with less than a high school education (NHSG's) or a high school education but no college (HSG's). Workers 45 and older were excluded since some jobs available to labor force entrants more than 25 years years ago are no longer available to such entrants. In addition, those working part-time voluntarily were excluded from the sample because their numbers could artificially depress average weekly earnings.

The sample includes 35,251 workers distributed among 443 occupations, which were ranked in descending order of average weekly earnings. The 178 highest paying occupations (the top third of jobs in the sample) were defined as "Good Occupations Available to the Less-educated" or "goal jobs." Weekly earnings for these occupations average at least $492. For a full-year worker, this is equivalent to annual earnings of $25,584, which is 160 percent of the 1996 poverty threshold for a family of four.

Identifying 'Starter' Jobs

Data on transitions from one occupation to another are taken from the October 1996 occupational mobility supplement to the Current Population Survey. Respondents' occupations at the time of the survey and 1 year earlier were compared to identify occupational mobility. A sample of 11,121 workers in 406 occupations included 1,454 who had changed occupations during the previous year. The transitions were then classified as to whether the initial or final occupation was a goal job. For each occupation, we calculated the percentage of workers who subsequently made a transition into a goal job and the percentage who made any transition into another occupation.

For all workers not initially in goal jobs, 3.6 percent had made a transition into a goal job (transition-to-goal) over the previous year. Those occupations with a transition-to-goal rate at least 50 percent higher than this average—that is, 5.4 percent or higher—were defined as "starter jobs," provided that this rate reflected a minimum of three transitions to goal jobs for that occupation in the underlying unweighted data. Seventeen occupations met these criteria. Occupations with a transition-to-goal rate of 5.4 percent or more, but with only one or two underlying transitions to goal jobs, were labeled as "other high-mobility jobs."

Occupations with an observed transition rate of less than 5.4 percent were classified as "dead-end" jobs, provided that the number of unweighted observations initially in that occupation was 56 or greater (that is, a transition rate of 5.4 percent or more would have corresponded to at least 3 transitions). Twenty-seven occupations met these criteria. Occupations with an observed transition rate of less than 5.4 percent, and with fewer than 56 unweighted cases, were labeled as "other low-mobility jobs."

Identifying 'Entry-Level' Jobs

Entry-level occupations were identified using an occupational classification system based on education and work experience requirements developed by the Bureau of Labor Statistics, U.S. Department of Labor. In this article, entry-level occupations are defined as those usually requiring short-term or medium-term training, and some that require formal vocational preparation. Occupations that typically require long-term training or previous work experience are considered nonentry-level. This definition differs from the low-skill occupation definition used by BLS.

due to our considering only less-educated workers, whereas the major source of rural-urban earnings and occupational differences is at the higher end of the educational continuum. In addition, "rural" here comprises a diverse set of local economies and labor markets. Transitions to goal jobs are likely to be challenging in scattered rural pockets throughout the United States.

Conclusions

Conventional career paths for less-educated workers most certainly exist, but they may not represent the most common experience of such workers. Starter jobs are exclusively entry level, and most

well-paying (goal) jobs reached through starter jobs require prior experience and/or training. The gender composition of some of the occupations studied further corroborates the notion of definite career paths. Women are disproportionately represented in "sales workers, other commodities" (starter jobs), and make up about half of "sales supervisors" and one-third of "sales representatives, mining/manufacturing/wholesaling" (goal jobs), which appear to have skill and knowledge associations.

Starter jobs such as data entry keyers and waiters' assistants do not appear to impart very many necessary skills for career mobility (beyond general good work habits). Perhaps these jobs attract workers with unrecorded characteristics—such as higher literacy levels, flexibility, or self-direction—that are particularly valued in many well-paying occupations.

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